

RAPID Education & Workforce Development (EWD) Proposal and Award Process

PHASE I: Call for Proposals and Proposal Submission

- **Opportunity Announced.** RAPID issued a call for project proposals on March 29, 2018 with a closing date of 12:00AM EST on May 22, 2018.
 - The call has been communicated broadly through our member base, and posted on the publically accessible AIChE and RAPID websites.
 - Deadlines, needed information, and procedures for submitting proposals are included in the announcement.
 - Any member can submit a proposal. RAPID will actively work with non-members to complete a RAPID membership application prior to May YY 2018 so that they can participate in this call for projects.
- **Proposal Submission.** Project proposals must be submitted electronically – submission instructions can be located on the RAPID website.
 - Interested parties will be asked to submit a proposal describing their potential project. A template with details on required information is available as part of the proposal call.
- **Proposal Submission Acknowledgement.** Proposal submitter will receive an email confirmation that their proposal was received
 - Project proposals will be assigned to the technical advisory board (TAB) sub-committee on Education and Workforce Development for evaluation. Subject matter experts from the other TAB sub-committees may be consulted to evaluation course technical content.
 - A compliance review will be performed for all proposals to insure they meet minimum cost share requirements and formatting as called out in the proposal template. A proposal may be returned without review if it does not comply.

PHASE II: Proposal Review and Processing

The Education & Workforce Development (EWD) sub-committee of RAPID's Technical Advisory Board will be responsible for coordinating the review all EWD proposals submitted based on a set of pre-defined metrics detailed in the additional information below. The EWD sub-committee is led by RAPID's Director of Education and Workforce Development and consists of a Focus Area (FA) leader from each of RAPID's six Focus Areas as well as a diverse group of RAPID members nominated by RAPID leadership. The EWD Sub-Committee will be governed by the Conflict of Interest (COI) Policy for RAPID and will follow a recusal process for those with an apparent or real COI.

RAPID's CTO will work with the Institute's Technical Advisory Board (TAB) to define a set of proposals to progress toward funding. These proposals will be reviewed with RAPID's Governing Board. Selected projects will subsequently be submitted to DOE for their concurrence. These projects will then enter negotiations with RAPID and the final project package will be sent to the DOE prior to the final awarding of funds.

	Description	Excellent (E)	Good (G)	Poor (P)
Fit	The fit of the project/proposed course to the key content topics identified in RAPID's PI & MCPI Body of Knowledge. The ability to address multiple content topics is seen as a significant positive.	Project/proposed course addresses multiple content topics identified in the PI & MCPI Body of Knowledge. Is 2-5 days in duration.	Project/proposed course addresses at least one content topic identified in the PI & MCPI Body of Knowledge. Is 2-5 days in duration.	Project/proposed course's focus is unrelated to educational content that furthers knowledge in process intensification or modular manufacturing or fails to address any content topics identified in the PI & MCPI Body of Knowledge. Is not 2-5 days in duration.
Impact Potential	The ability of the project/proposed course's learning objectives to fulfill educational needs for engineering graduate students and professional engineers.	Proposed learning objectives provide significant impact on the educational needs of a wide representation of the target audiences: engineering graduate students and professional engineers. Potential pool of course attendees is relatively large.	Proposed learning objectives meet educational needs of engineering graduate students or professional engineers. Potential pool of course attendees is relatively moderate.	Proposed learning objectives provide little to no impact on the educational needs of engineering graduate students or professional engineers or represent needs of a particularly niche section of the target audience population. Potential pool of course attendees is relatively small.
Academic Merit	Academic merit of project/proposed course.	Project/proposed course includes: a detailed course outline, a description of rich and effective face-to-face teaching methods (ie: lab-based, project-based, inquiry-based), includes measurable evaluation methods, and, if applicable, a description of any design or simulation tools that would be utilized.	Project/proposed course includes at least two of the following: a course outline, a description of proposed face-to-face teaching methods, measurable evaluation methods and, if applicable, a description of any design or simulation tools that would be utilized.	Project/proposed course includes one or zero of the following: a course outline, a description of proposed face-to-face teaching methods, evaluation methods, and a description of any design or simulation tools that would be utilized.
Project Team	The skills sets of the proposing team vs. the scope of the project. The availability and potential future availability of Subject Matter Experts.	Project/proposed course would be developed and implemented by a team with the appropriate skill sets. Pool of appropriate and well-versed instructors for future course delivery is more than 2.	Project/proposed course would be developed and implemented by a team with potentially small skill gaps that would be addressable via consultation with others. Pool of appropriate and well-versed future instructors is 1-2.	Project/proposed course would be developed and implemented by an individual or team working entirely outside of their area of expertise. Pool of appropriate and well-versed future instructors is 1.
Existing Facilities	The leveragability of existing facility resources for purposes of development and implementation of project/proposed course. A combination of industrial and academic support is seen as a significant positive.	Has access to considerable existing resources that would be leveraged for the development and implementation of project/proposed course. Industrial team members supporting the project.	Potentially small need to acquire outside resources or tools. Limited to no formal collaboration outside of the submitting institute.	Considerable outside resources or tools would be required in order to develop and/or implement the proposed work.
Sustainability Plan	A proposed sustainability plan whereby, once the initial course is developed, RAPID can continue to offer the course on an annual or bi-annual basis for the purposes of generating program income.	Provides detailed sustainability plan whereby RAPID can continue to offer the course to target audience members and generate program income.	Provides a sustainability plan with potential to generate program income but has addressable gaps.	Provides no opportunity for future RAPID program income or does not address a sustainability plan.

- **Peer Review.** Once a proposal is received, the Education & Workforce Development Committee Chair will lead the EWD TAB Sub-Committee in evaluating project proposals.
 - The Reviewers will evaluate their assigned projects using the criteria in the Scorecard (above) by assigning a score of Excellent (E), Very Good (VG), Good (G), Fair (F), and Poor (P) for each category and then providing an overall assessment of the project based on the criteria scores. Descriptions of what is meant by E, G, and P are provided to help calibrate scoring. Particular emphasis will be given to the academic merits of the proposal, the fit with the PI & MCPI Body of Knowledge, and the proposed Sustainability Plan.

- The EWD TAB Sub-Committee will participate in a formal review meeting to rank all project proposals. The meeting will be run by an AIChE Facilitator.
 - The EWD Committee Chair will create a Rank-Ordered List of projects reviewed by the EWD TAB Sub-Committee, sorted based on project score. All projects will be included in the list regardless of score.
- **Aggregation of the TAB Sub-Committee results.** The EWD Committee Chair will provide the RAPID CTO with a Rank-Ordered List of projects.
 - The CTO will aggregate Rank-Ordered Lists from all 6 FAs plus the area of Education & Workforce Development and make a recommendation to the TAB on the projects that should be funded. This aggregation and recommendation will take into account recommendations made by the sub-committees.
 - The TAB will evaluate this portfolio of projects and make a final recommendation on funding.
- **Final approval of RAPID recommended portfolio of projects.** Once the portfolio of projects is recommended by the TAB, with CTO will present this to the CEO and governing board for endorsement. The technical package is then sent to the DOE Technology Manager for concurrence

PHASE III: Award Processing

Selected projects will then enter negotiations with RAPID and the final project package will be sent to the DOE prior to the final awarding of funds

RAPID Metrics

The RAPID manufacturing institute has established several metrics to measure project progress toward our overall goal of transforming the process industries. These goals should be explicitly address in project proposals submitted to the institute.

- **Build Industrial Partnership and Eco-System**
Demonstrate potential for significant industry adoption of MCPI.
- **Self-Sustainment**
Establish a portfolio of external support that directly replaces the initial Federal funding of \$14 million/yr, starting in Year 6.
- **Train the Trainers**
Train at least 50 professionals per year in MCPI by year 3.
- **Educate Students**
Train at least 500 students per year in MCPI by year 3.