



TO: LEA Competitive Grant Applications for I3 Funds

FROM: John Lock, Chief Executive Officer and President
Project Lead The Way

RE: Grant Applications and Procedures
Request for Proposals

DATE: June 15, 2010

Introduction

Project Lead The Way (PLTW) has applied for a grant from the “Investing in Innovation” Fund (I3), which is being sponsored by the U.S. Department of Education. Should PLTW be fortunate to receive such a grant, it will make substantially all of these funds available to urban and rural Local Education Agency (LEA) applicants that are interested in employing the funds to create and implement exemplary, new PLTW programs and to expand existing programs.

PLTW is committed to the broadest possible expansion of its Engineering and Biomedical Sciences programs throughout high schools and middle schools in the U.S. Accordingly, PLTW is seeking partnerships with LEAs in underserved urban and rural communities which will demonstrate the educational vision, resource commitment and community support to create or grow unique science, technology, engineering and mathematics (STEM) programs to benefit students. PLTW believes that, as the result of these partnerships and with the benefit of an I3 grant, more than 1,000,000 students may be able to have access to its STEM programs.

PLTW anticipates that proposal grading and, ultimately, grant awards by a National Selection Committee (Committee) will vary considerably depending on the plans submitted by LEA applicants and on their specific objectives and context. The amounts awarded will be based on the costs required to create efficient and sustainable PLTW programs (net of matching funds identified by the LEAs). All grants will be structured over four-year periods based on LEAs’ attainment of explicit milestones targeting student academic performance, compliance with submitted implementation plans, and sustainability. If the milestones are not reached by the LEAs, PLTW reserves the right to cancel any future funding obligations under the four-year grant agreements. Please see “Required Elements for Financial Reporting and Payment Schedule” on page 8.

PLTW

PLTW is a national non-profit organization that is transforming schools by delivering innovative methods of project-based learning, through rigorous and relevant Engineering and Biomedical Sciences curricula, to develop the necessary critical thinking and problem-solving skills in students in classrooms in all 50 states and the District of Columbia. PLTW’s mission is to ensure that America succeeds in the increasingly high-tech and high-skill global economy by partnering with middle schools and high schools to prepare students to be the most innovative and productive in the world. The organization is the leading provider of STEM education programs in the U.S. PLTW estimates that approximately 400,000 students, 4,000 schools and 13,000 PLTW-trained teachers will participate in PLTW’s program during the 2010-11 school year. Its internally-developed Engineering and Biomedical Sciences curricula, implemented through PLTW-trained teachers, emphasize hands-on experiences in STEM and biomedical sciences to prepare students for academic and professional success in these disciplines. PLTW attracts a very diverse group of students to consider careers as scientists, technology experts, engineers, mathematicians, healthcare providers and researchers in an effort to enable the U.S. to compete favorably in the global economy.

PLTW’s Record of Results

Based on its exceptional record of success, PLTW is uniquely poised to scale its offerings to reach urban and rural LEAs. Evidence of this leadership, across a variety of educational metrics, is demonstrated as follows:

- PLTW’s programs currently offer instruction to approximately 350,000 students in more than 3,400 high schools and middle schools through more than 10,000 PLTW-trained teachers. In the coming school year, PLTW anticipates training approximately 3,000 additional teachers and adding approximately 700 new program implementations. By the 2015-16 school year, PLTW plans to reach more than 1,400,000 students by growing to approximately 10,000 programs. PLTW is a fully-sustained, not-for-profit enterprise.

- PLTW has a history of addressing the unique circumstances of high needs students and closing their achievement gaps. A study recently concluded that, after three years in PLTW's Gateway to Technology program, Latino middle school students - who began PLTW's courses with lower proficiency in math, reading and science and with lower attendance rates - outperformed the control group by the time the students reached the 8th grade. Another recent study demonstrated that PLTW effectively narrowed the achievement gap and increased student achievement for Hispanic/Latino high school students in English Language Arts, Mathematics, Science, History/Social Science, and Life Sciences.¹
- PLTW is appropriate for students of all interest and ability levels at both the middle school and high school levels. Its rigorous and relevant curricula enable all students to build strong study, teamwork and communication skills, which create solid foundations for success in any college major or career. High school students who earn qualifying grades in certified PLTW programs have the opportunity to earn college credits. With its activities, projects, and problem-based learning strategies incorporated into the curriculum, PLTW has proven² that students with disabilities and those with limited English proficiency may narrow or overcome achievement gaps significantly during PLTW courses. In addition, PLTW promotes dual enrollment in high school and college-level courses. Many PLTW students are enrolled concurrently in college-prep math classes. A number of community colleges also offer PLTW courses in which high school students may earn dual credits and extend their learning beyond the courses that are offered in high schools.

PLTW's Objectives with I3 Funds

Because PLTW believes deeply in the effectiveness of its programs and its impact on students' college and career readiness, PLTW seeks, with the benefit of I3 funds, to make its programs available to as many students as possible. For this initiative, PLTW is seeking proposals from urban and rural LEAs, two groups which historically have had a difficult time implementing exemplary PLTW programs. In approaching the RFP process, applicants are encouraged to:

- Be as creative, innovative and aggressive as possible in their: (i) creation of new, exemplary PLTW Engineering and Biomedical Sciences programs in high schools and middle schools; and (ii) support the scale-up of existing, exemplary PLTW Engineering and Biomedical Sciences programs in high schools and middle schools;
- Demonstrate their ability to: (iii) generate the matching funds and other forms of support from local partners which will be required to create long-term program sustainability; and (iv) operate effectively (producing academic achievement gains for students) and efficiently (doing so on a low "cost per seat" basis).
- Demonstrate the effectiveness of the project-based learning and critical thinking skills, which students will have acquired through their PLTW programs, against their achievement on math and science standards, graduation rates, STEM career retention, college and career readiness, and career placement; and
- Demonstrate their commitment and ability to maintain the fidelity and quality of PLTW's programs and to strive for continuing improvement of PLTW's implementations within each LEA.

Preference points will be awarded by the Committee for: (i) proposals from LEAs which include both PLTW's Engineering and Biomedical Sciences curricula in their high schools and PLTW's Engineering curriculum in their middle schools; (ii) LEAs which provide alternate paths to teaching certification for prospective PLTW teachers who have relevant STEM career backgrounds; (iii) LEAs which are comprised of at least 75% 'free and reduced lunch' students and/or 75% underrepresented minority students and/or students in rural communities; (iv) schools implementing the International Baccalaureate Career Certificate; and (v) states or LEAs which submitted letters of support for PLTW's I3 grant application prior to May 12.

Directions to Applicants

PLTW will accommodate proposals in two rounds. First round proposals must be received no later than July 15, 2010 at 5:00 PM ET. LEAs will inform PLTW of their intention to submit a first round proposal no later than July 1, 2010 at 5:00 PM ET. Awards from the first round of proposals will be announced on September 6, 2010 and will receive funds in January 2011. PLTW anticipates that first round applicants will be those LEAs which are presently prepared to provide meaningful matching funds to supplement I3 grant funds received from PLTW. Please see "Objectives with I3 Funds" directly above. Second round proposals deadlines will be determined by the I3 grant announcements and will be due eight weeks after the announcement date. LEAs will inform PLTW of their intention to submit a second round proposal three weeks after the grant announcement is made. Awards from the second round of proposals will be announced December 1, 2010. PLTW anticipates that second round applicants will be those LEAs who need more time to provide meaningful matching funds to supplement I3 grant funds received from PLTW and require additional time prior to submitting.

All proposals and notices of intention to submit proposals can be sent electronically to I3@pltw.org. A web portal site will be set up for electronic submissions through the PLTW website.

Proposals may not exceed five (5) pages, excluding attachments. A "page" is 8.5" x 11", on one side only, with 1" margins at the top, bottom, and both sides. Page numbers and an identifier may be within the 1" margin. Applicants will single space all text in the application narrative, including titles, headings, footnotes, quotations, references, captions, as well as all text in charts, tables and graphs. Applicants are required to use one of the following fonts (12-point or larger): Times New Roman, Courier, Courier New, or Arial. Other fonts submitted will not be accepted.

¹ Heywood, J., White, S. Evaluation of Project Lead The Way in Rockwell-Sponsored Middle Schools (Third Report), for Milwaukee Public Schools, December 31, 2009.

² Galt Joint Union High School District, Analysis of Student Achievement and Programs, 2007.

General Information on Review Process

The grantees and award amounts will be determined by a Committee that is independent of PLTW. Decisions of the Committee are final. Applicants who do not receive an award may request access to the scoring rubric and a briefing about how their proposals were considered. PLTW may withdraw or modify this RFP as it deems appropriate. This RFP is not binding on PLTW, nor does it constitute a contractual offer. Without limiting the foregoing, PLTW reserves the right, in its sole discretion, to reject any or all proposals; to modify, supplement, or cancel the RFP; to waive any deviation from the RFP; to negotiate regarding any proposal; and to negotiate final terms and conditions that may differ from those stated in the RFP. Under no circumstances shall PLTW be liable for any costs incurred by any applicant in connection with the preparation and submission of a response to this RFP.

Applications will not be reviewed until a State Capacity Document is received or approved.³ Site visits, selected at random, may occur prior to the grant being awarded.

³ See attached description for further details on the State Capacity Document.



Executive Summary

If PLTW receives a grant from I3, it will make substantially all of the funds available to rural and urban LEA applicants in response to the following proposals:

- Grant proposals which will support the creation of new, exemplary PLTW Engineering and/or Biomedical Sciences programs in high schools and middle schools (New Programs).
- Grant proposals which will support the scaling up of existing, exemplary PLTW Engineering and/or Biomedical Sciences programs in high schools and middle schools (Existing Programs).

PLTW's goal is to create the broadest possible cadre of urban and rural exemplary programs to serve as leaders, role models and inspirations to other LEAs. In this process, PLTW's goal is to expand the number of new students with access to its programs to more than 1,000,000 by 2015.

Becoming an exceptional LEA will recognize its exemplary achievements in implementing, supporting and sustaining PLTW's programs. In its reviews, the Committee will place significant weighting on proposals by those applicants that display the following characteristics:

- Joint applications from multiple LEAs or state-wide consortia which demonstrate their ability to leverage local expertise and resources;
- The ability to develop strong sources of support from their local communities, also for the purpose of insuring sustainability. This support may include financial support and other corporate support (including mentorships and internships for students, after-school activities – including robotics competitions, teacher professional development, and “engineers in the classroom” to reinforce the relevance of PLTW's instruction), philanthropic support and community support from a “Partnership Team” which is mandated by PLTW's School District Agreement. Applicants will be scored based on their ability to provide matching funds to leverage the number of students that are enrolled in PLTW;
- The number of complete offerings of PLTW Engineering and Biomedical Sciences courses provided and the ability to integrate these courses with their schools' core academic courses (in some cases for core math or science course credit), in ways which amplify and reinforce the learning in the core courses;
- The ability to creatively develop or demonstrate existing strong internal support mechanisms, at all levels of school, teacher and counselor administration, through which they: (i) will be able to actively monitor PLTW program fidelity and quality, to evolve course offerings, and to strive for continuous program improvement; (ii) will partner with PLTW in its priority to assess student achievement which, critically, enables it to explore the effects of its programs on student content knowledge, academic core subject understanding, college readiness, and cognitive development; (iii) will develop effective mechanisms for recruiting future classes of PLTW students, importantly including female students and underrepresented minority students; (iv) will insure that an adequate supply of teachers has been trained by PLTW; (v) will create alternative routes of certification for teachers, particularly those who have had industrial careers in STEM disciplines; and (vi) will be able to insure sustainability;
- The ability to offer students weighted credit for PLTW courses, including access to the International Baccalaureate Career Certificate program;
- Grow the number of articulation agreements with post secondary institutions –including course credit – at a broad range of colleges and universities in their states; and
- The ability to operate effectively (producing academic achievement gains for students) and efficiently (doing so on a low “cost per seat” basis).

A numerical score (on a scale of 125) will be assigned to each proposal relative to the selection criteria. An additional 35 preference points will be awarded by the Committee for: (i) proposals from districts which include both PLTW's Engineering and Biomedical Sciences curricula in their high schools and PLTW's Engineering curriculum in their middle schools; (ii) LEAs which provide alternate paths to teaching certification for prospective PLTW teachers who do not have backgrounds in Education; (iii) LEAs which are comprised of at least 75% ‘free and reduced lunch’ students and/or 75% underrepresented minority students; (iv) schools implementing the International Baccalaureate Career Certificate; and (v) states or LEAs which submitted letters of support for PLTW's I3 grant application prior to May 12.

In addition to the preference points, PLTW strongly encourages applicants to include the following key components in their proposals:

- Training for additional teachers of PLTW courses (by year and number) and providing alternate paths to teaching certification for prospective PLTW teachers who do not have backgrounds in Education;
- Integration of PLTW's courses with their schools' core academic courses (in some cases for core math or science course credit), in ways which amplify and reinforce the learning in the core courses;
- Active monitoring of PLTW program fidelity and quality and striving for continuous program improvement;
- Assessment of student achievement, which enables PLTW to explore the effects of its programs on student content knowledge, academic core subject understanding, college readiness, and cognitive development;

- Development of effective mechanisms for recruiting future classes of PLTW students, importantly including female students and underrepresented minority students;
- Offers to students of weighted credit for PLTW courses, including access to the International Baccalaureate Career Certificate program;
- Development of articulation agreements with post secondary institutions - including the number of agreements and course credit - at a broad range of colleges and universities in their states; and
- Development of strong sources of support from their local communities for the purpose of insuring sustainability. This support may include financial support and other corporate support (including mentorships and internships for students, after-school activities – including robotics competitions, teacher professional development, and “engineers in the classroom” to reinforce the relevance of PLTW’s instruction), philanthropic support and community support.

In order to be eligible to apply for I3 grant funds from PLTW, an LEA or group of LEAs must meet the following minimum requirements:

- Each applicant must be an LEA or a consortium of LEAs, not an individual school.
- An *Eligible School* must consist of at least 60% minority students and/or 60% students who qualify for ‘free and reduced lunch’ and/or be defined by the U.S. Department of Education as a rural LEA (LEA must be eligible under the Small Rural School Achievement (SRSA) program or the Rural and Low-Income School (RLIS) program. SRSA: www.ed.gov/programs/reapsrsa/eligible09/index.html or RLIS: www.ed.gov/programs/reaprlisp/eligibility.html).
- If a consortium of LEAs or an entire state is applying, the sum of the schools included in the application, by each LEA, must include no less than two-thirds of the eligible schools.

Milestones

All grants will be structured over four-year periods based on each LEAs’ attainment of explicit milestones targeting student academic performance, compliance with submitted implementation plans, and sustainability. PLTW will actively monitor districts relative to the achievements of their milestones. If they are not reached, PLTW reserves the right to cancel any future funding obligations under the four-year grant agreements. Please see “Required Elements for Financial Reporting and Payment Schedule” on page 8.

Proposals by LEAs will include a set of milestones, for each of the four years of the grant program. Milestones should include a matching funds timeline as well as specific plans to meet any of the key components listed in the application narrative.

Support to Applicants

PLTW staff will arrange two conference calls for LEAs interested in applying for funding, to be held on June 18, 2010 from 3:00 to 4:30 PM ET and on August 3, 2010 from 3:00 to 4:30 PM ET. Contact I3@pltw.org if you need additional information or the call-in number.

Administrative Fees

An applicant may budget up to 10% of the grant amount for administrative fees. Within each application, one fiscal agent must be listed as the point of contact and fund manager.

RFP Format

Each applicant must submit a completed application including:

- **Part A- Application cover page and required elements (new program only)**
- **Part B- Grant narrative, including milestones of program effectiveness**
- **Part C- Budget narrative and form**
- **Part D- Applicant information and school enrollment data (one per LEA)**

Grant Application Submission

PLTW will accommodate proposals in two rounds. First round proposals must be received no later than July 15, 2010 at 5:00 PM ET. Districts will inform PLTW of their intention to submit a first round proposal no later than July 1, 2010 at 5:00 PM ET. Awards from the first round of proposals will be announced on September 6, 2010 and will receive funds in January 2011. PLTW anticipates that first round applicants will be those LEAs which are presently prepared to provide meaningful matching funds to supplement I3 grant funds received from PLTW. Please see “Objectives with I3 Funds” on page 3 of this document. Second round proposals deadlines will be determined by the I3 grant announcements and will be due eight weeks after the announcement date. LEAs will inform PLTW of their intention to submit a second round proposal three weeks after the grant announcement is made. Awards from the second round of proposals will be announced December 1, 2010. PLTW anticipates that second round applicants will be those LEAs who need more time to provide meaningful matching funds to supplement I3 grant funds received from PLTW and require additional time prior to submitting.

Uses of Funds

Each grant proposal must provide an estimated budget. Uses of funds must align with the allowable expenditures listed below.

Allowable Expenditures

Funds may be used in the following ways for middle school and high school recipients:

- Expenses for outfitting of classrooms/labs for PLTW instruction, including acquisition of equipment, supplies, computers, software and project kits (with associated breakdown of requested items by cost, number to be purchased and total);
- Expenses for professional development (Summer Training Institute fees and \$1,500 stipends for teachers);
- Expenses for the building of support networks for new programs or existing programs (for example, to source remedial algebra programs for students or to offer online mentoring); and
- Expenses for recruiting of students into future PLTW classes.

Non-Allowable Expenditures

Non-allowable expenses include, but are not limited, to the following:

- Entertainment expenses;
- Lobbying expenses; and
- General school administration expenses.

Required Elements for Financial Reporting and Payment Schedule

PLTW intends that all grant proposals will support and grow PLTW schools in LEAs and/or will catalyze the implementation of new PLTW schools in LEAs. Districts must agree to the following milestones:

- Conduct the PLTW end-of-course assessment for each course offered;
- Submit end-of-course assessment data to the PLTW national data assessment group;
- Complete the PLTW certification process, conducted by a PLTW-affiliated university, by the conclusion of the current grant award period; and
- Submit accurate and timely enrollment and performance data to PLTW.

Data Submission and Reporting

The following reports will be required in **addition to the online assessment information**:

- Retention rates, in PLTW's programs, of 9th and 10th grade students (high school only)
- 8th grade PLTW students enrolling in PLTW's high school program (middle school only)
- High school Seniors in PLTW's programs pursuing postsecondary degrees with STEM majors
- Number of underrepresented minority and "free and reduced lunch" students enrolled in PLTW's programs
- Number and percentage of class size
- Total number of students enrolled in PLTW's programs
- Number of PLTW courses (units for middle school) offered
- Percentage of total number of students in school
- Number of PLTW teachers on staff
 - Backgrounds of teachers
 - Teaching experience, both in general (subjects/years) and as teachers of PLTW courses
 - Does school offer alternative teaching certification paths for professionals without backgrounds in Education?

Payments

Upon execution of a Memorandum of Understanding, the first year award amount will be advanced to the LEA. All grants will be structured over four-year periods based on LEAs attainment of explicit milestones targeting student academic performance, compliance with submitted implementation plans, and sustainability. If the milestones are not reached by the LEAs, PLTW reserves the right to cancel any future funding obligations under the four-year grant agreements.

Part A: Grant Application – Cover Page

Cover Page Information

Requested Grant Amount:	\$	Type of Program(s). Please circle one or more below:
LEA		New GTT New PTE New BMS Existing PTE Existing BMS
LEA		New GTT New PTE New BMS Existing PTE Existing BMS
List all LEAs		

Designated Grantee/Fiscal Agent		
First and Last Name	Title	Organization/School
Address	City, State, ZIP	County
Phone	E-mail Address	
Grant Contact Person (if different)		
First and Last Name	Title	Organization/School
Address	City, State, ZIP	County
Phone	E-mail Address	

Part B: Required Elements (New Programs Only)

(1) *At least one PLTW site visit is required. Please list at least one PLTW site which district personnel have visited.*

Activity	Date	School Visited	Contact
PLTW Site Visit			
PLTW Site Visit			

(2) *Please list one or more teachers that will be trained to implement the PLTW program.*

Teacher Name	Teacher License Area	Course(s)

(3) *Please identify one or more lead administrators*

Administrator Name	Administrator Title	Email

Part C: Budget Summary

Use the form to provide an estimated budget for each LEA listed in the grant proposal. Please round all budget amounts to the nearest dollar.

Description	Budget	Comments/Narrative
Materials and Supplies		
Professional Development		
Contract Services		
Travel		
Equipment Purchases		
Miscellaneous <i>*please specify requested use of funds</i>		
Other		
TOTAL		

Part D: Applicant information and school current enrollment data (one per LEA)

Applicant Information

School Name	District	% Free or Reduced Lunch	% Minority
Rural <i>*please specify SRSA and/or RLIS or N/A</i>		New or Existing Program	Amount \$ Requested

Current School Enrollment Data

School	GTT	IED	POE	DE	AE	CEA	BE	CIM	EDD	PBS	HBS	MI	BI



NOTE: New and existing PLTW programs will be scored on the same rubric. Existing programs should detail HOW they are currently meeting each requirement as well as how they will improve in the future with the grant funding. New programs will detail HOW THEY PLAN to address each issue, including milestones and current capacity within the school.

A numerical score (on a scale of 125, with an additional 35 preference points) will be assigned to each proposal relative to the selection criteria.

Preference Points

- Proposals received from a state that submitted a Letter of Support to PLTW prior to its submission of the I3 Grant Application on May 12, 2010 (5 points)
- Proposals from LEAs which include both PLTW's Engineering and Biomedical Sciences curricula in their high schools and PLTW's Engineering curriculum in their middle schools (1 point per high school/middle school program; not to exceed 10 points)
- LEAs which provide alternate paths to teaching certification for prospective PLTW teachers who do not have backgrounds in Education (1 point per LEA; not to exceed 5 points)
- The inclusion of schools which are comprised of at least 75% 'free and reduced lunch' students and /or 75% underrepresented minority students (1 point per school; not to exceed 10 points)
- The inclusion of schools implementing the International Baccalaureate Career Certificate Program (.25 points per school; not to exceed 5 points)

Matching Funds (up to 25 points)

A leveraged per seat cost will be calculated based on the following equation:

$$\text{Leveraged Per Seat Cost (LPSC)} = \text{requested funds} / \text{total number of expected students in the PLTW program}$$

By definition, this calculation allows the reviewer to understand an approximate total number of students who are expected to participate in the PLTW initiative.

Applicants will be ranked against their rural and urban peers to determine the allocation of points. The applicant with the lowest per seat cost will be awarded 25 points.

Areas of Specific Interest

I. Criterion 1 – Internal Support (15 Points)

- 5 pts – Clear description of central level support structure including clear example(s) of quality and sustainable funding.
- 5 pts – Clear description of building level support structure and clear example(s) of quality.
- 5 pts – Clear description of classroom level support, including a succession plan if a teacher leaves, and example(s) of quality.

II. Criterion 2 - External Support (15 Points)

- 10 pts - Are matching funds from an external source provided? If matching funds are included how much and for how long?
- 5 pts - How many partners are listed? What is the depth and quality of the relationships listed?

III. Criterion 3 - Integration (10 Points)

- 5 pts – Does the program integrate with math and science curriculum within each school?
- 5 pts – Does the description integrate honors credit, International Baccalaureate, or college readiness programs?

IV. Criterion 4 - Network Leadership (10 Points)

- 5 pts – Is the applicant innovatively setting an example of an exemplar program?
- 5 pts - Does the description clearly and completely describe how the LEA will serve as a leader? Some examples may include the following: site visits, certifications, master teachers, mentoring of other sites, marketing and presentations of PLTW, etc.

V. Criterion 5 – Community Connections (10 Points)

- 5 pts – To what extent does the applicant describe their deliberate connections between PLTW and extracurricular activities? What are the quality and level of engagement of these programs?
- 5 pts – To what extent does the applicant describe their deliberate connections between PLTW and post secondary opportunities? What is the quality and the level of engagement of these programs? Are special programs in place to assist PLTW students in their transition from high school to college? (For middle school programs, the criteria are the same but apply instead to transitioning between eighth grade and high school.)

VI. Criterion 6 – Recruitment and Support (20 Points)

- 10 pts –What strategies were described for how many courses that would be offered and how many students would be enrolled in the program?
- 10 pts – What innovative ways are listed to support the success of the students in PLTW? Were specific partners listed to provide additional support?

VII. Criterion 7 – Evaluation and Reporting (20 Points)

- 10 pts – How thorough is the applicant’s description of data collection, evaluation, and reporting?
- 10 pts – To what extent does the applicant show they are continuously improving their program due to evaluation results?