

Budget

Vanguard-Sentinel Career (051458) - Sandusky County - 2017 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (70)

U.S.A.S. Fund #: 466

Plus/Minus Sheet (opens new window)

Purpose Code	Object Code	Salaries 100	Retirement Fringe Benefits 200	Purchased Services 400	Supplies 500	Capital Outlay 600	Other 800	Total
Instruction		0.00	0.00	0.00	60,552.00	711,976.00	0.00	772,528.00
Support Services		0.00	0.00	12,937.00	0.00	0.00	0.00	12,937.00
Governance/Admin		0.00	0.00	59,964.00	0.00	0.00	0.00	59,964.00
Prof Development		0.00	0.00	37,500.00	0.00	0.00	0.00	37,500.00
Family/Community		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Safety		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Facilities		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transportation		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indirect Cost							0.00	0.00
<b>Total</b>		0.00	0.00	110,401.00	60,552.00	711,976.00	0.00	882,929.00
							<b>Adjusted Allocation</b>	0.00
							<b>Remaining</b>	-882,929.00

Application

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**Please respond to the prompts or questions in the areas listed below in a narrative form.**

**A) APPLICANT INFORMATION - General Information**

1. Project Title:  
Taking AIM through the RAMTEC Model

2. Project Tweet: Please limit your responses to 140 characters.  
"AIM" K-8 students to replicated RAMTEC program & advanced manufacturing careers with mobile lab in Seneca and Sandusky counties.  
*This is an ultra-concise introduction to the project.*

3. Estimate of total students at each grade level to be directly impacted each year.

*This is the number of students that will receive services or other benefits as a **direct result** of implementing this project. This does not include students that may be impacted if the project is replicated or scaled up in the future. It excludes students who have merely a tangential or indirect benefit (such as students having use of improved facilities, equipment etc. for other uses than those intended as a part of the project). The Grant Year is the year in which funds are received from the Ohio Department of Education. Years 1 through 5 are the sustainability years during which the project must be fiscally and programmatically sustained.*

Grant Year					
Education	Pre-K Special	K	1	2	3
4	5	75	6	75	75
90	9	59	10	59	11
				62	12

Year 1					
Education	Pre-K Special	90	K	90	1
90	4	90	5	90	6
150	9	63	10	63	11
				69	12

Year 2					
Education	Pre-K Special	180	K	180	1
180	4	180	5	135	6
180	9	71	10	71	11
				81	12

Year 3					
Education	Pre-K Special	270	K	270	1
270	4	270	5	180	6
195	9	80	10	80	11
				96	12

Year 4					
Education	Pre-K Special	450	K	450	1
450	4	450	5	225	6
225	9	90	10	90	11
				110	12

Year 5					
Education	Pre-K Special	540	K	540	1
540	4	540	5	270	6
				270	7
					270

4. Explanation of any additional students to be impacted throughout the life of the project.

*This includes any students impacted indirectly and estimates of students who might be impacted through replication or an increase in the scope of the original project.*

Vanguard-Sentinel CTC will replicate Straight A-funded RAMTEC advanced manufacturing career pathways for grades 9-12 and create a mobile lab to introduce K-8 students in 13 districts to in-demand careers. Replication of the successful model will immediately impact students enrolled in related programs at VSCTC. A mobile lab and activities at K-8 schools will immediately impact 315 students in gr. 6-9, expanding more than 13-fold through implementation. Together, the replication and the directed exposure program will double interest and enrollment in CTE manufacturing programming where students earn industry certifications in robotics programming, robotic welding, integrated PLCs, CNC machining and industrial maintenance - which meet many of the significant shortages in manufacturing industry. VSCTC serves 1,600 square miles and is the only career tech center for the 13 public schools in that area. It has the potential to reach 13,500 k-8 students and 6,000 high school age students.

5. Lead applicant primary contact: - Provide the following information:

First and last name of contact for lead applicant  
Gregory A. Edinger

Organizational name of lead applicant  
Vanguard-Sentinel Career & Technology Centers

Address of lead applicant  
1306 Cedar St., Fremont, OH 43420

Phone Number of lead applicant  
567-201-2844

Email Address of lead applicant  
gedinger@vsctc.org

*Community School Applicants: After your application has been submitted and is in Authorized Representative Approved status an email will be sent to your sponsoring entity automatically informing the sponsor of your application.*

6. Are you submitting your application as a consortium? - Select one checkbox below

Yes

No

If you are applying as consortium, please list all consortium members by name on the "Consortium Member" page by clicking on the link below. If an educational service center is applying as the lead applicant for a consortium, the first consortium member entered must be a client district of the educational service center.

[Add Consortium Members](#)

7. Are you partnering with anyone to plan, implement, or evaluate your project? - Select one checkbox below

Yes

No

If you are partnering with anyone, please list all partners (vendors, service providers, sponsors, management companies, schools, districts, ESCs, IHEs) by name on the "Partnering Member" page by clicking on the link below.

[Add Partnering Members](#)

## **B) PROJECT DESCRIPTION - Overall description of project and alignment with goals**

8. Describe the innovative project: - Provide the following information

*The response should provide a clear and concise description of the project and its major components. The following questions will address specific outcomes and measures of success.*

a. The current state or problem to be solved; and

Long dependent on an industrial and manufacturing based economy, Sandusky and Seneca counties are at the heart of Ohio's manufacturing workforce crisis. VSCTC offers high school and adult programs in welding, machining, electrical trades, engineering and robotics, nevertheless a 60,000 worker shortage looms (www.ohioed.org). The AIM program is designed to engage students with career connections and experiential learning to better prepare for in-demand careers at an early age. Powered by RAMTEC, CTE programs will be enhanced with project-based applications, rigorous curriculum and postsecondary credit opportunities. VSCTC expands on the RAMTEC model with a new mobile lab that will entice young students to think differently about manufacturing, unseating its dirty, unskilled reputation. Instead, students will learn about and prepare for well-paying, highly skilled jobs in the advanced manufacturing and additional career fields available in their own backyards.

b. The proposed innovation and how it relates to solving the problem or improving on the current state.

VSCTC will replicate and build on the success of the Tri-Rivers/RAMTEC effort to mitigate a crisis in workforce preparation for advanced manufacturing careers. National Association of Manufacturers states 88% of manufacturers have difficulties finding qualified candidates. Ohio Association of Community Colleges believes industry recognized credentials are a part of the solution. RAMTEC, funded in Straight A Round 2, received statewide attention for fostering statewide engagement & supporting a holistic approach to economic/ workforce development by allowing students to demonstrate mastery of skills on equipment identical to that used in Ohio manufacturing industries. RAMTEC collaborates with the State of Ohio's education, workforce and economic development agencies; VSCTC brings together local legislators, National Machinery, Motion Controls, local economic development councils, & Terra State Community College to focus efforts on Ottawa, Wyandot, Crawford, Seneca & Sandusky counties. Partnering directly with Tri-Rivers/RAMTEC, VSCTC will 1) Replicate its competency based advanced manufacturing certification model in existing engineering & robotics, machining, welding, & electrical programs, linking to our county workforce needs; 2) Create new stackable regional credentials so students can earn up to 30 hours of credit toward an associate's degree; & 3) Design/implement a new k-8 exploratory mobile training lab, which will provide resources & "hands on" activities for 13 associate schools and provide all students with the "AIM" in the right direction towards their future goals. These efforts will increase both interest and academic/skill preparation students need to access exciting career opportunities - and that employees need to reduce their workforce gap. Replicating best practices of Ohio's current 9 operational RAMTEC centers ensures efficiency, effectiveness & strong student outcomes. At the same time, local industry needs to drive curriculum development, equipment selection & instructional personnel - keeping current with local workforce needs. Current research shows students who graduate HS having already obtained college credit have 30% greater chance of graduating from college compared to peers who have not earned college credit before graduation. Students in RAMTEC programs can earn stackable credentials under National Association of Manufacturers (NAM)-endorsed Manufacturing Competency Based Skills Certification System. Instructional/organizational changes include: expansion of competency-based & blended instruction where teachers more effectively use e-learning materials, real life simulators & authentic activities including hands-on learning to build & operate robots, design & build parts & share these ideas across Ohio RAMTEC centers. VSCTC's manufacturing instructor will be cross trained so RAMTEC can be integrated into Welding, Engineering & Advanced Manufacturing, Precision Machining, & Computer Networking. Local manufacturer Motion Controls also will provide both staff and student training. The result will enhance our ability to cross train students so they can earn new stackable certifications and post-secondary college credits. Additionally, "AIM" is a response to bring real world exposure, application, and training to k-8. VSCTC's current manufacturing students will partner with students in Automotive & Collision Repair to repurpose a retired school bus as a mobile & multi-functional CTE lab, featuring RAMTEC. A new instructor will deliver exposure & hands-on manufacturing experiences to students as early as Kindergarten at their home schools. VSCTC requests \$882,929 for implementation & will have total sustainable costs of \$311,964. Sustainable costs will be offset by the reallocation of existing resources to maintain the program. VSCTC sees this model as critical to meeting imminent workforce development needs in manufacturing, and as a forebear to similar career programs in other critical fields.

9. Select which (up to four) of the goals your project will address. For each of the selected goals please provide the requested information to demonstrate your innovative process. - (Check all that apply)

a. Student achievement

i. List the desired outcomes.

*Examples: fewer students retained at 3rd grade, increase in graduation rate, increased proficiency rate in a content area, etc.*

Advanced Manufacturing Enrollment Baseline: set 2016 - # students participating in advanced manufacturing CTE programs By 2022: 100% K-8 exposure activities once per year Baseline: Pre/post survey By 2022: Increase baseline by 200% the # of 12th graders enrolled Baseline: Post-Program Placement Short Term: By 6/30/2017, exceed Ohio's Post-Program Placement benchmark Long Term: By 6/30/2022, Post-Program Placement (FY2022 Report Card) will increase annually Industry Credential Baseline: # Industry Credentials (FY2016 Report Card) Short Term: By 6/30/2017, Exceeds Ohio's Industry Credential benchmark Long Term: By 6/30/2022, the # Industry Credentials will increase by 50% Dual Enrollment/College Credit Plus Baseline: % students who participated in dual enrollment (2016 Report Card) Short Term: By 6/30/2017, Exceed Ohio's dual enrollment benchmark (ODE benchmark) Long Term: By 6/30/2022, Meet or exceed Ohio's dual enrollment benchmark as defined by ODE.

ii. What assumptions must be true for this outcome to be realized?

*Examples: early diagnosis and intervention are needed to support all children learning to read on grade level; project-based learning results in higher levels of student engagement and learning, etc.*

Assumption 1: OH continues to need advanced manufacturing workforce. According to JobsOhio, OH has the 3rd largest manufacturing workforce in America. Advanced manufacturing is one of the key industries driving innovation & job creation. Assumption 2: Having experience on real industry machines through AIM mobile lab will improve interest and academic preparation for CTE manufacturing and additional career programs. Ohio puts stock in early career exposure and counseling, as evidenced by comprehensive Career Advising requirements. Assumption 3: RAMTEC addresses local workforce needs to increase advanced manufacturing training. The RAMTEC model is recognized by OH Economic Development Association, Governor Kasich administration, & ODE. Students graduate with industry recognized credentials/certifications & college credits in advanced manufacturing that lead to postsecondary attainment & ensures academic rigor to compete with the demand of these new skilled jobs.

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

VSCTC is prepared to quickly build upon the successes of the RAMTEC Tri-Rivers consortium. The assumptions that were established in round 2 have been met or exceeded allowing accelerated replication. Competency Based Skills Certifications have been established, tested and proven with Industry leading companies. 250+ students earned certifications in the areas of Robotics, CNC Machining, Industrial Maintenance and Welding. More than 80% of those students continued their education the following year at a postsecondary institution. RAMTEC Tri-Rivers has also worked to complete correlations to the Ohio Career & Adult Education content standards for Advanced Manufacturing and Engineering Technologies. This has enabled high school students to meet and exceed all graduation demands set forth by the Ohio Department of Education. The instructional staff at RAMTEC Tri-Rivers have been approved to run a train the trainer program allowing the certifications to be passed onto new RAMTEC partner instructors. These steps are imperative in order for students to meet the graduation requirements, be recognized by Industry for job placement and meet the need for College Credit Plus

articulation. VSCTC has identified an instructor to receive training. VSCTC plans to build on RAMTEC's recruitment program to allow middle school students to be exposed to Advanced Manufacturing careers. The VEX robotics programs has allowed over 300 students and parents to experience project based learning activities to better help them understand that the "NEW" manufacturing jobs of today are not the "OLD" dirty, dangerous and low skilled jobs of the past. VSCTC instead plans to introduce young students to the real machines with its mobile AIM lab. Local partners, like Motion Controls and our local industry associations, are already excited about our plans and have committed to help. It is very important to understand that it took Tri-Rivers three years to establish the first RAMTEC center but only 9 months to replicate 8 additional centers through Straight A Round 2. While the Round 2 funding nudged Ohio forward to meet the manufacturing workforce needs, it is imperative that Ohio continue to address the 60,000 manufacturing worker shortage. Given the past success, VSCTC is excited to replicate in our part of the state, exposing thousands more children to exciting and viable careers - and preparing them to reach their goals. As a result of RAMTEC Round 2 teachers transformed the way they teach because their students now use the same equipment that actual manufacturing facilities in Ohio use. Curriculum has already been designed to meet State Standards in Career and Adult Education pathways, and is directly linked to Industry needs so students learn skills they need to successfully gain employment post graduation. The Manufacturing programs in Robotics, Welding, CNC Machining, Industrial Maintenance and Additive Manufacturing (3D Printing) are collaborating to make sure the students have a blended knowledge throughout all manufacturing skill sets. These skill sets are better preparing our students for post-secondary programs as well as direct employment through internships. Instructors can also track/grade each competency so students stay on track.

iv. List the specific indicators that you will use to measure progress toward your desired outcome.

*These should be measurable changes, not merely the accomplishment of tasks. Example: Teachers will each implement one new project using new collaborative instructional skills, (indicates a change in the classroom) NOT; teachers will be trained in collaborative instruction (which may or may not result in change).*

Formative teacher participation in training/earn credentials # industry credentials offered # college courses offered equipment purchases partners interested in hosting student intern/apprentices # home schools hosting AIM lab activities # students participating in middle school career exploration # students enrolled in advanced manufacturing program cost savings and reallocation per FIT Summative CTE Post-Program Placement (FY2022 Report Card) will increase annually # Industry Credentials earned by manufacturing students will increase by 50% Exceed Ohio's dual enrollment benchmark as defined by ODE. Increase baseline by 200% the # of 12th graders enrolled in manufacturing Increase by 1000% # k-8 students exposed to advanced manufacturing through AIM lab. This project is revenue neutral. VSCTC will reallocate personal services and supply funds to pay for the increased electricity & property insurance, gasoline and vehicle maintenance, and additional FTE needed to sustain the project

v. List and describe pertinent data points that you will use to measure student achievement, providing baseline data to be used for future comparison.

teacher participation in training/earn credentials # industry credentials offered # college courses offered equipment purchases partners interested in hosting student intern/apprentices # home schools hosting AIM lab # students with Jobs Ohio backpack # students enrolled in adv manufacturing program cost savings and reallocation per FIT Post-Program Placement Ohio's dual enrollment (college credit plus) benchmark as defined by ODE.

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

VSCTC will avail itself of processes already in place to ensure successful implementation and/or make adjustments if any assumptions prove false or outcomes are not realized. The RAMTEC Tri-Rivers leadership team, Chuck Speelman (Tri-Rivers), John Burkhart (IST), and Ritch Ramey (RAMTEC), meet regularly with superintendents and directors of each career tech center already implementing. They review relevant data bi-monthly as available. Annual staff and industry partner surveys will help identify where recalibration or options may need to be expanded. This team works with META Solutions to create a more in depth evaluation plan that has target percentages (formative/summative data) and specific plans to adjust training/support if targets are missed. In addition, VSCTC will work closely with our local industry partners and Terra State to ensure continued alignment with our two counties' needs. We are already deeply engaged with our workforce development partners through our advisory board, and will integrate progress monitoring/adjustment plans into regularly scheduled meetings and workgroups. VSCTC is contracting with the same META external evaluator who has provided ongoing feedback for the original project and earlier replications. The cost is \$56,250, which is 7.5% of project budget. This amount is a great value and below industry standard (10%). VSCTC believes external evaluation is essential to ensure the project monitors and reports on fidelity of implementation, student achievement outcomes and cost savings. This outside support will also provide additional value because the evaluator will be able to recommend mid-course adjustments to improve results if needed.

b. Spending reductions in the 5 year forecast

i. List the desired outcomes.

*Examples: lowered facility cost as a result of transition to more efficient systems of heating and lighting, etc.; or cost savings due to transition from textbook to digital resources for teaching.*

ii. What assumptions must be true for this outcome to be realized?

*Example: transition to "green energy" solutions produce financial efficiencies, etc.; or available digital resources are equivalent to or better than previously purchased textbooks.*

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

iv. Please enter the Net Cost Savings from your FIT.

v. List and describe the budget line items where spending reductions will occur.

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

c. Utilization of a greater share of resources in the classroom

i. List the desired outcomes.

*Example: change the ratio of leadership time spent in response to discipline issues to the time available for curricular leadership.*

ii. What assumptions must be true for this outcome to be realized?

*Examples: improvements to school and classroom climate will result in fewer disciplinary instances allowing leadership to devote more time to curricular oversight.*

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

iv. Please provide the most recent instructional spending percentage (from the annual Ohio School Report Card) and discuss any impact you anticipate as a result of this project.

*Note: this is the preferred indicator for this goal.*

v. List any additional indicators that you will use to monitor progress toward your desired outcome. Provide baseline data if available.

*These should be specific outcomes, not just the accomplishment of tasks. Example: fewer instances of playground fighting.*

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

d. Implementing a shared services delivery model

i. List the desired outcomes.

*Examples: increase in quality and quantity of employment applications to districts; greater efficiency in delivery of transportation services, etc.*

ii. What assumptions must be true for this outcome to be realized?

*Example: neighboring districts have overlapping needs in administrative areas that can be combined to create efficiencies.*

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, data analysis etc), or how these are well-supported by the literature.

iv. List the specific indicators that you will use to monitor progress toward your desired outcomes.

*These should be measureable changes, not the accomplishment of tasks.*

*Example: consolidation of transportation services between two districts.*

v. List and describe pertinent data points that you will use to evaluate the success of your efforts, providing baseline data to be used for future comparison.

*Example: change in the number of school buses or miles travelled.*

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

10. Which of the following best describes the proposed project? - (Select one)

a. New - Never before implemented

b. Existing - Never implemented in your community school or school district but proven successful in other educational environments

c. Replication - Expansion or new implementation of a previous Straight A Project

d. Mixed Concept - Incorporates new and existing elements

e. Established - Elevating or expanding an effective program that is already implemented in your district, school or consortia partnership

### C) BUDGET AND SUSTAINABILITY

11. Financial Information: - All applicants must enter or upload the following supporting information. The information in these documents must correspond to your responses in questions 12-19.

a. Enter a project budget in CCIP (by clicking the link below)

[Enter Budget](#)

b. If applicable, upload the Consortium Budget Worksheet (by clicking the Upload Documents link below)

c. Upload the Financial Impact Table (by clicking the Upload Documents link below)

[Upload Documents](#)

*The project budget is entered directly in CCIP. For consortia, this project budget must reflect the information provided by the applicant in the Consortium Budget Worksheet. Directions for the Financial Impact Table are located on the first tab of the workbook. Applicants must submit one Financial Impact Table with each application. For consortium applications, please add additional sheets instead of submitting separate Financial Impact Tables.*

882,929.00 12. What is the amount of this grant request?

13. Provide a brief narrative explanation of the overall budget.

*Responses should provide a rationale and evidence for each of the budget items and associated costs outlined in the project budget. In no case should the total projected expenses in the budget narrative exceed the total project costs in the budget grid.*

VSCTC is requesting \$882,929 for a RAMTEC lab, a mobile lab, training and evaluation. Although 1 FTE is needed to deliver programs on the AIM mobile lab, VSCTC will offset this expense with an anticipated retirement. Therefore, no grant funds are requested for personnel. For the mobile lab, VSCTC owns a bus, which will be converted to a lab as a joint project of manufacturing and automotive CTE programs; so, only the lab equipment and supplies are requested. The request is reasonable for serving more than 14,000 students in 13 school districts, and is sustainable without incurring new costs. PURCHASED SERVICES: \$110,401 Support: (\$12,937) Lab Equipment Shipping & installation Professional Development: (\$37,500) for curriculum, professional development and technical assistance provided by Tri-Rivers RAMTEC. Governance: (\$59,964) for external evaluation provided by META Solutions through FY22. Rate is 7.5% of budget. Supplies: \$60,552 AIM Lab (\$20,118): STEMFinity Curriculum 6@\$1,595, Career Connections Curriculum 5@\$20, Minds I-STEM Integrated Robotic Kits 4@\$2,612; RAMTEC Lab (\$40,434): 20 computers & cart \$25,434, 5-yr supply machine consumables and replacement parts \$15,000 Equipment: \$711,976 RAMTEC Lab (\$470,446): FANUC equipment \$120,390; Motoman Robotics \$39,795; Milling Cart with Controller \$37,100; CNC Turning OI Mate Controller \$37,034; CNC equipment software \$3,227; Tooling equipment \$11,253; CNC FANUC simulator \$25,000; AB Equipment \$75,280; Parker Hannifin hydraulic \$26,422; REALWELD \$52,000; Universal \$16,128; Bofa \$2,816; Vex Robotics \$15,000; RAMTEC Sign \$9,000 AIM Mobile Lab (\$241,530): 3D Printers 2@\$3,995; 3D Vehicle Engineer \$2,500; AV Rover 4@\$10,000; Epilog Laser \$3,499; SRM-20 Milling Machine 2@\$4,995; Mobile Automotive Tech Training Panels \$7,500; Heavy Equipment Sim Log \$15,000; Virtual Sim Spray Booth \$20,000; Construction Sim Build \$16,000; Solar Panel Trainer 2@\$8,817; Wind Turbine Trainer 2@\$11,401; CNC Lathe & Mill \$3,920; Welder

14. Please provide an estimate of the total costs associated with maintaining this program through each of the five years following the initial grant implementation year (sustainability costs). This is the sum of expenditures from Section A of the Financial Impact Table.

57,306.00 a. Sustainability Year 1

57,306.00 b. Sustainability Year 2

82,740.00 c. Sustainability Year 3

57,306.00 d. Sustainability Year 4

57,306.00 e. Sustainability Year 5

15. Please provide a narrative explanation of sustainability costs.

*Sustainability costs include any ongoing spending related to the grant project after June 30, 2017. Examples of sustainability costs include annual professional development, staffing costs, equipment maintenance, and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in this narrative section should be consistent and verified by the financial documentation submitted and explained in the Financial Impact Table. If the project does not have sustainability costs, applicants should explain why.*

To sustain the activities of the grant, VSCTC will hire 1 FTE instructor for the mobile AIM Lab and purchase consumable supplies, including gasoline, for the mobile. Computers purchased in the grant year for the RAMTEC lab will have to be replaced after three years. Vehicle maintenance will be handled by the automotive CTE program. Lab equipment maintenance and software upgrades were also included in the initial purchase agreements as to lower any recurring cost and sustainability issues. The sustainable costs will be offset by eliminating 1 FTE instructor position, an anticipated retirement for FY17. Total sustainability costs are \$57,306 per year, except for Year 3 which is \$82,740. Total sustainability costs are \$311,964. Personal Services \$46,459 for 1 FTE instructor associated with the mobile lab Benefits \$6,667 benefits calculated at 15.4% of salary Supplies \$4,180 for consumables related to 3D printers, Epilog lasers, and the mobile lab, including gasoline and oil. Maintenance, including oil changes, will be completed by the automotive CTE program, with no labor costs. \$25,434 IN YEAR 3 ONLY to replace 20 computers purchased in the grant year.

0 16. What percentage of these costs will be met through cost savings achieved through implementation of the program?

*Total cost savings from section B of the Financial Impact Table divided by total sustainability cost from section A of the Financial Impact Table. If the*

calculated amount is greater than 100, enter 100 here.

17. Please explain how these cost savings will be derived from the program.

*Applicants who selected spending reductions in the five-year forecast as a goal must identify those expected savings in questions 16 and 17. All spending reductions must be verifiable, permanent, and credible. Explanation of savings must be specific as to staff counts; salary/benefits; equipment costs, etc.*

This project is revenue neutral - there is no identified cost savings.

100 18. What percentage of sustainability costs will be met through reallocation of savings from elsewhere in the general budget?

*Total reallocation from section C of the Financial Impact Table divided by total sustainability cost from section A of the Financial Impact Table*

*Note: the responses to questions 16 and 18 must total 100%*

19. Please explain the source of these reallocated funds.

*Reallocation of funds implies that a reduction has been made elsewhere in the budget. Straight A encourages projects to determine up front what can be replaced in order to ensure the life of the innovative project.*

VSCTC is anticipating a retirement, effective July 31, 2016. This position will not be replaced. Instead, the salary and benefit savings will be reallocated to support the ongoing activities of the RAMTEC lab and mobile AIM lab. The total savings exceed the total sustainable costs by \$106,061 over five years, providing ample cushion in case of any unanticipated expenses. Annual Reallocated Costs Personal Services \$72,417 for one FTE instructor, retiring Benefits \$11,188 for instructor, calculated at 15.4% of salary

## D) IMPLEMENTATION

20. Please provide a brief description of the team or individuals responsible for the implementation of this project, including other consortium members or partners.

*This response should include a list of qualifications for the applicant and others associated with the grant. Please list key personnel only. If the application is for a consortium or a partnership, the lead should provide information on its ability to manage the grant in an effective and efficient manner. Include the partner/consortium members' qualifications, skills and experience with innovative project implementation and projects of similar scope.*

Enter Implementation Team Key Personnel information by clicking the link below:

[Add Implementation Team](#)

*For Questions 21-23 please describe each phase of your project including its timeline, and scope of work.*

*A complete response to these questions will demonstrate awareness of the context in which the project will be implemented and the time it will take to implement the project with fidelity. A strong plan for implementing, communicating and coordinating the project should be apparent, including coordination and communication in and amongst members of the consortium or partnership (if applicable). Not every specific action step need be included, but the outline of the major steps should demonstrate a thoughtful plan for achieving the goals of the project. The timeline should reflect significant and important milestones in an appropriate time frame.*

21. Planning

a. Date Range August 2016 December 2016

b. Scope of activities - include all specific completion benchmarks.

Upon award: media notification; board approvals/contracts signed; planning team designated; Recruit teachers for training; finalize student recruitment & evaluation plan; create Leadership Team meetings calendar for planning period to ensure all processes are in place for implementation; Au/Wi 2016: create plan of action; partnership development (local and statewide); staff curriculum and correlations to Career Tech competencies/ Industries Certification needs; determine teacher needs, curriculum needs, equipment needs and reassurance that facility space and electrical needs; Register instructors/ set-up instructor certification; Contact equipment vendors to identify equipment delivery schedules; Continue articulation agreements with Community Colleges for College Credit Plus; Initiate weekly meetings for Project Steering Committee; submit final evaluation plan to ODE; Quarterly project evaluation. Benchmarks to demonstrate success equipment & supply purchases evaluation plan created board contracts approved curriculum design documents marketing and recruitment plan communication/key stakeholder engagement/consent from all required officers, governing bodies The experience gained in RAMTEC round 2 will help us to plan on going communications. Hold local celebrations and events with business partners to build deeper relationships, board/staff meetings to announce project; quarterly board/community updates; create marketing plan: Leadership Team meetings coordinate project outcomes, ensure strong communication and capacity to manage scope of work. Monthly meetings with evaluator to monitor evaluation plan & project fidelity. Site visitations, instructor training at RAMTEC Marion, Instructor Certification with worldwide leading manufacturers and monthly webinars are essential for success.

22. Implementation (grant funded start-up activities)

a. Date Range August 2016 to June 2017

b. Scope of activities - include all specific completion benchmarks

Au/Wi 2016: Kick-off marketing campaign in CTC region; lead instructor training; FANUC Certification Training; FANUC Certification CERT Cards delivered; Deliver VEX Training Equipment VEX Lead Teacher Two-Day Training; Initiate training for Motoman Robotics; Deliver STEM cart; Deliver/Install FANUC & Motoman Robotic Equipment; Wi/Sp 2016-17 Host open houses; Delivery of the middle school training units; Robotics Lead Teacher Training; Finalize marketing and recruitment efforts; Su 2017 Professional development, training, technical support Student recruitment for following year Benchmarks to demonstrate success equipment & supply purchases training participation student

attendance at summer camp certifications issued College Credit Plus courses completed Communication/key stakeholder engagement/consent from all required officers, governing bodies; continue project coordination, marketing and communication activities and board reports as described in planning; administer and manage scope of work/ develop interdependent system of change; Project Director will coordinate Quarterly Project Steering Team meetings; CTC Teachers involved in decision making; annual surveys to determine project success; Board approves contracts and will receive quarterly reports from evaluator on progress; continue outreach with business/higher ed partners to build deeper relationships, Monthly meetings with evaluator to monitor evaluation plan & project fidelity.

23. Programmatic Sustainability (years following implementation, including institutionalization of program, evaluation and communication of program outcomes)

a. Date Range August 2017- June 2022

b. Scope of activities - include all specific completion benchmarks

A competency based educational model integrates pre/post assessments as embedded measurements for curriculum objectives that RAMTEC centers will assess with e-assessment management systems. 2017-2018: identify instructional competencies required for students in manufacturing pathways; pre-assess student knowledge and prescribe effective training based on the competencies required of the Advanced Manufacturing model being used; (on-going) formative assessments provide data analysis of both individual and class results that identify instructional areas that are weak and need additional teaching; post-testing will occur upon completion of the program and before industry certification tests are taken. 2016-2022: Evaluator will assess: Training effectiveness as a result of assessment system; Performance and satisfaction data collected from students and employers - business oversight, and employer evaluations of student interns and adult employees who are graduates and trained in one of the RAMTEC centers. Benchmarks : graduation, community college credits, passage of industrial certifications, and job placement and students planning to pursue further education, training, or employment; cost savings and cost reallocation per FIT. Administer and manage scope of work/ communication/key stakeholder engagement/consent from all required officers, governing bodies; Consortia Leadership Team meet quarterly thru 2022; META-outcome reporting thru 2022; semi-annual board reports; CTC provide META access to student data for analysis-include project related surveys/ relevant data to effectively access-analyze data; develop interdependent system of change; manufacturing needs continually assessed and responses from the manufacturers used to adjust instruction and to improve student learning; new CTCs will network with other RAMTEC centers to share/learn best practices to enhance statewide manufacturing centers' instruction.

#### E) SUBSTANTIAL IMPACT AND LASTING VALUE

24. Describe the expected changes to the instructional and/or organizational practices in your institution.

*The response should illustrate the critical instructional and/or organizational changes that will result from implementation of the grant and the impact of these changes. These changes can include permanent changes to current district processes, new processes that will be incorporated or the removal of redundant processes. The response may also outline the expected change in behaviors of individuals (changes to classroom practice, collaboration across district boundaries, changes to a typical work day for specific staff members, etc.). The expected changes should be realistic and significant in moving the institution forward.*

Please enter your response below:

Taking AIM Through the RAMTEC Model is a first and substantial step toward increasing both interest and academic/skill preparation of our young people in high-demand career fields. Our mobile AIM Lab will expose thousands of students, early in their education, to exciting, hands-on activities that provide real technical training and unseat unsavory impressions of industries like manufacturing. VSCTC chose to partner with Tri-Rivers/RAMTEC because the program has already proven to be scalable and replicable. By combining their experience with local industry expertise, we will be able to replicate competency based advanced manufacturing certification model, greatly enhancing existing engineering and robotics, machining, welding and electrical programs for high school students, as well as create new stackable regional credentials so they can earn up to 30 hours of credit toward associate's degrees. The mobile lab will bring CTE, starting with manufacturing programs, to the doorstep of thousands of students who might not otherwise consider such pursuits until it's too late. Our intent is to widen the range of CTE exposures we provide k-8 students to include all viable industry fields. The RAMTEC centers are committed to changing teaching and learning. Students today engage in technology as early as two years old, yet education still tends to look much like it did in the 1960's. The RAMTEC centers will enable our instructors to teach in a blended learning manner using E-learning materials with real life simulators and authentic activities by using hands- on learning to build & operate robotic and advanced automation equipment, design & build parts and share these ideas with each of the other centers through the web. These activities will be CTE/STEM related and address the high academic standards across the disciplines. We will provide RAMTEC students the ability to do hands on, real life activities in the classroom using the identical equipment used in industry.

25. Please provide the name and contact information for the person and/or organization who will oversee the evaluation of this project.

*Projects may be evaluated either internally or externally. However, evaluation must be ongoing throughout the entire period of sustainability and have the capacity to provide the Ohio Department of Education with clear metrics related to each selected goal.*

Please enter your response below:

Tad Douce, Vice President of Innovation and Adult Learning at META Solutions Meta Solutions, 2100 Citygate Drive |Columbus, OH 43219  
614-473-8300

26. Describe the overall plan for evaluation, including plans for data collection, underlying research rationale, measurement timelines and methods of analysis.

*This plan should include the methodology for measuring all of the project outcomes. Applicants should make sure to outline quantitative approaches to assess progress and measure the overall impact of the project proposal. The response should provide a clear outline of the methods, process, timelines and data requirements for the final analysis of the project's progress, success or shortfall. The applicant should provide information on how*

*the lessons learned from the project can and will be shared with other education providers in Ohio. Note: A complete and comprehensive version of the evaluation plan must be submitted to ODE by all selected projects.*

We are partnering with META Solutions to provide an in-depth program of research and evaluation in order to produce key information about the effectiveness of advanced manufacturing implementation & how it relates to the student outcomes identified. A systematic research process will be employed with both an internal project team and external evaluator to work on the program evaluation. The evaluation will use both qualitative and quantitative data collection and analysis. A competency based educational model integrates pre/post assessments as embedded measurements for curriculum objectives that RAMTEC centers will assess with e-assessment management systems. Through yearly formative reporting, the evaluation will focus on: -CTE Post-Program Placement (FY2022 Report Card) will increase annually; -# Industry Credentials earned by manufacturing students will increase by 50%; -Exceed Ohio's dual enrollment benchmark as defined by ODE; -Increase baseline by 200% the # of 12th graders enrolled in manufacturing; and -Increase by 1000% # k-8 students exposed to advanced manufacturing through AIM lab 2016-2017: identify instructional competencies required for students in manufacturing pathways; pre-assess student knowledge and prescribe effective training based on the competencies required of the Advanced Manufacturing model being used; (on-going) formative assessments provide data analysis of both individual and class results that identify instructional areas that are weak and need additional teaching; post-testing will occur upon completion of the program and before industry certification tests are taken. 2016-2022: Evaluator will assess: Training effectiveness as a result of assessment system; Performance and satisfaction data collected from students and employers - business oversight, and employer evaluations of student interns and adult employees who are graduates and trained in one of the RAMTEC centers. 2016-2022: Evaluator will assess: K-8 engagement levels of students during AIM lab visits. Benchmarks (disaggregated by gender): graduation, community college credits, passage of industrial certifications, and job placement and students planning to pursue further education, training, or employment; pre-post surveys; and cost savings and cost reallocation per FIT. final analysis of progress, success or shortfall Ongoing formative annual evaluation submitted to the Board of Education and the ODE will continue beyond the grant period and will conclude with a summative program evaluation at the end of the 5 years. All reports will adhere to national standards of confidentiality protecting any personal information. Project leaders will submit proposals to share progress at all state conferences and forums. Project team will communicate progress quarterly to Board of Education and community. Sharing lessons learned across Ohio Additionally, the evaluation will consider the impact of the project as it relates to the conditions for sustainability and expansion across the state. The K-8 Ohio Means Jobs' Backpack initiative will be ready to share lasting value for purposes of scalability for other CTE programs.

27. Please describe the likelihood that this project, if successful, can be scaled-up, expanded and/or replicated. Include a description of potential replications both within the district or collaborative group, as well as an estimation of the probability that this solution will prove useful to others. Discuss the possibility of publications, etc., to make others aware of what has been learned in this project.

*The response should provide an explanation of the time and effort it would take to implement the project in another district, as well as any plans to share lessons learned with other districts. To every extent possible, applicants should outline how this project can become part of a model so that other districts across the state can take advantage of the learnings from this proposed innovative project. If there is a plan to increase the scale and scope of the project within the district or consortium, it should be noted here.*

VSCTC agrees with Tri-Rivers and other RAMTEC replication sites that this work is critically important as Ohio's workforce shifts from low skill industrial work to high skill advanced manufacturing. The Ohio Association of Community Colleges stated, "We must create a network of education, training, & research to develop a highly -skilled workforce". RAMTEC has responded by collaborating with industry, state, & educational leaders to identify and obtain the training equipment and facilities to meet the needs of Ohio's Manufacturing community. RAMTEC was designed and built to answer exactly what industry was saying they needed, and as a result, we have a high interest in replicating this work in Seneca and Sandusky counties. We have the strong potential, not only to expand the geography of a successful model, but to share with others. Our mobile lab will be the first available to "hit the road" so that other schools, career tech centers and potential business partners can see the potential first-hand where they live and work. VSCTC is pursuing this project as an independent but active, collaborative partner to the consortium. We will be able to contribute to their strength. The RAMTEC consortium currently has the existing facilities, administration, instructional & curriculum staff to replicate the RAMTEC philosophy. VSCTC has a ready team of local educators and industry experts to do so in our part of the state. RAMTEC has successfully brought together both Industry & Education partnerships with the largest suppliers of equipment to Industry. These companies offer RAMTEC center financial support & proprietary curriculum required to replicate RAMTEC centers across Ohio with minimal sustaining costs. With Ohio having an immediate need for 60,000 workers in advanced manufacturing, we must take advantage of this offer before we lose the opportunity to any other state. We must keep Ohio as a leader in advanced manufacturing.

By virtue of applying for the Straight A Fund, all applicants agree to participate in the overall evaluation of the Straight A Fund for the duration of the evaluation time frame. The Governing Board of the Straight A Fund reserves the right to conduct an evaluation of the project and request additional information in the form of data, surveys, interviews, focus groups and other related data on behalf of the General Assembly, Governor and other interested parties for an overall evaluation of the Straight A Fund.

PROGRAM ASSURANCES: I agree, on behalf of this applicant, and any or all identified consortium members or partners, that all supporting documents contain information approved by a relevant executive board or its equivalent and to abide by all assurances outlined in the Straight A Assurances (available in the document library section of the CCIP).

I agree Gregory A. Edinger Superintendent May 6, 2016

Consortium

Vanguard-Sentinel Career (051458) - Sandusky County - 2017 - Straight A Fund - Rev 0 - Straight A Fund

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### Consortium Contacts

No consortium contacts added yet. Please add a new consortium contact using the form below.

## Partnerships

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## Partnerships

First Name	Last Name	Telephone Number	Email Address	Organization Name	IRN	Address	Delete Contact
John	Burkhart	4195663636	john@istohio.com	IST		150 Industrial Drive, , Lexington, OH, 44904	
Tad	Douce	6144738300	tdouce@metasolutions.net	META Solutions		2100 Citygate Drive, , Columbus, OH, 43219	
Bill	Reinke	614-466-1374	rep88@ohiohouse.gov	State Representative		Vern Riffe Center, 77 S. High St. , , Columbus, OH , 43215	
Tim	Ellenberger	419-334-5886	timellenberger@mcri-us.com	Motion Controls		1500 Walter Ave. , , Fremont, OH , 43420	
Jay	Kiesel	419-447-5211	jkiesel@nationalmachinery.com	National Machinery, LLC.		PO Box 747, , , Tiffin, OH , 44883	
Cyndi	Geroski	4199340549	flcdirector1@gmail.com	Fostoria Learning Center		342 Perry Street, , Fostoria, OH, 44830	

## Implementation Team

Vanguard-Sentinel Career (051458) - Sandusky County - 2017 - Straight A Fund - Rev 0 - Straight A Fund

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Implementation Team								
First Name	Last Name	Title	Responsibilities	Qualifications	Prior Relevant Experience	Education	% FTE on Project	Delete Contact
Gregory A.	Edinger	Superintendent, Vanguard-Sentinel CTC	Mr. Edinger will be responsible for the communication of the overall vision and expectations held within the grant. He will be responsible for the scheduling of the quarterly and bi-annual advisory meeting and oversee the data collection of the performance measures.	For the past eight years Mr. Edinger has led the vision to increase VSCTC CTE enrollment by 6%. He has successfully been able to implement creative programming to utilize existing staff and reach more students. Such as blended academics, growth of Tech Prep/CCP programming, long distance/on-line CTE courses offered to associate school students, as well as the first school district in Ohio to fully implement a performance based pay system for teachers that revolves around student success.	Mr. Edinger has over 8 plus successful years as a superintendent in Ohio public schools, plus an additional 12 years working in business and industry prior to educational career. Three years in a row the VSCTC has increased the district student performance grade card and earning all As on each graded area. In 2015 Mr. Edinger was a member of the Ohio Association of CareerTech Superintendents Vision 2020 committee which set the vision for all CTE centers in Ohio for the year 2020 and beyond.	AA Business Administration, University of Toledo, BS Business Education, BGSU, MA School Admin, Ashland University.	20	
Elissa	Heal	Director Vanguard-Sentinel CTC	Ms. Heal is the director at Vanguard-Sentinel CTC and has been there since July 2008. Ms. Heal oversees the operation and direction of the secondary students as well as program development for the high school.	Oversees the operation and direction of the secondary students, as well as program development for the high school.	Oversees the operation and direction of the secondary programs, as well as program development for the high school. For eight years has successfully engaged business and industry participation and was instrumental in developing a co-op program with National Machinery for high school seniors in the machining program.	Findlay University (MA, Educational Leadership & Supt/Princ license); Ohio State University (BA Agriculture)	10	
Ritch	Ramey	RAMTEC Coordinator	Coordinate the development and implementation of the statewide RAMTEC Advanced Manufacturing and Robotics training program. Oversee	Certified Project Lead the Way (PLTW) Digital Electronics, Computer- Integrated- Manufacturing (CIM) and Engineering Design and Development instructor	Certified Project Lead the Way (PLTW) Digital Electronics, Computer- Integrated- Manufacturing (CIM) and Engineering Design and	BS - Adv. Tech Education (BGSU); AAS in Engineering (Marion Technical College) Ohio Vocationally Certified	20	

			the statewide advisory committee. Collaborate with RAMTEC facility and industrial partners to implement and develop professional development and certification programs for instructors. Direct, develop and implement student work based robotics camps. Develop and oversee certification process for RAMTEC facilities coordinators and staff.		Development instructor	Engineering instructor		
Rosemary	Kreiger	Curriculum & Adult Education Director, Vanguard-Sentinel CTC	Coordinates all district level compliance documentation and works closely with fiscal office to ensure the local district director has a working knowledge of the program alignment and crosswalk opportunities that exist in aligning training. Ms. Kreiger also oversees all the Adult Education programming where additional program growth will occur. Ms. Kreiger will sit on the core AIM & RAMTEC planning team and provide guidance to the team on opportunities to support and expand project based learning for students and develop new opportunities for students to be engaged and innovate.	Highly skilled school leader that is active in CTE organizations. Ms. Kreiger has more than 20 years experience in CTE. Ms. Kreiger was the leader in attaining ASCC accreditation for our Adult Education programming.	Ms. Kreiger was a lead member of the planning and design team that built an innovated sophomore career tech program as well as the first career center 22+ adult education diploma program.	Findlay University (MA, Educational Leadership & Supt/Princ license); Kent State University (BA Marketing Education)	10	
Tad	Douce	META VP of Innovation and Adult Learning	external evaluator - coordinate all evaluation	Define, communicate and drive overall strategic and growth	Tad Douce received 2015 Tri-Rivers Lautenslager	BS Technology Education	5	

			activities for project	<p>agendas for META's Education Solutions Division. This includes analyzing industry and market trends, evaluating the needs of the customer, and aligning stakeholders for the division's future business/initiatives. Works with other leaders to define and champion business commitments and priorities to guide internal decision making. Bring a leadership and management experience to hire, coach, and develop the team for Adult Learning, Professional Development and Creative Services. Creates a culture that celebrates success, professional growth and will support the communication and implementation of change in the organization.</p>	<p>Distinguished Service Award recognizing his many contributions, including those to RAMTEC. Tad Douce has been instrumental in the continuous development of the Tri-Rivers Engineering programs and RAMTEC facility. Since the mid-1990s he has participated in and helped develop the River Valley Middle School as a leader in technical education in Ohio. Tad created state 4-H Lego Robotics program books I and II and first came up with the idea to host the Society of Manufacturing Engineers Educational Foundation's National Robotics Challenge in Marion in 2002 when they could no longer afford to run the operation at the Rochester Institute of Technology." Without his constant support, friendship and collaboration there would be no National Robotics Challenge (NRC), RAMTEC Vex Robotics League and more than likely no RAMTEC. He was one of the leaders in the community that helped us create the vision., The highly successful RAMTEC Vex Robotics League and the RAMTEC Advanced Manufacturing &amp; Engineering programs have grown into national prominence from this contest.</p>			
Brian	Snieder	Engineering Technologies and Robotics Instructor	Coordinate, develop and implement the RAMTEC	20+ years as an Electrical, Engineer and Robotics instructor and 15+	15+ years of experience as a project engineer in business and	Associate Degree in Applied Science from	10	

			<p>Advanced Manufacturing and Robotics curriculum into his current program. Will create a regional advisory committee. Collaborate with RAMTEC consortium and industrial partners to implement and develop professional development and certification programs. Will develop and teach student work based robotics camps.</p>	<p>years as a project engineer in business and industry prior to becoming a teacher. Is currently an adjunct instructor for Terra Community college and teaches our on campus CCP courses for the Engineering curriculum. Project Lead the Way (PLTW) Digital Electronics, Computer- Integrated- Manufacturing (CIM) and Engineering Design and Development instructor</p>	<p>industry prior to becoming a teacher. Knows the practical use and application of the programs. Mr. Snieder's program has competed in the BEST Robotics competition for the last three years and twice has had teams qualify for the national competition. He has also ran numerous lego winter and summer camps for students in 3-8 grades. Has been trained in Fanuc robotics.</p>	<p>Terra Community College. Majored in Electronic Engineering Technology. Holds Vocational Teaching</p>		
Alan	Binger	Treasurer, Vanguard-Sentinel CTC	<p>Fiscal agent responsible for ALL financial aspects of the administration of the AIM/RAMTEC grant.</p>	<p>Mr. Binger has been a school treasurer / fiscal officer for 26 years and is in his 5th year with the Vanguard-Sentinel CTC district.</p>	<p>Mr. Binger has been a school treasurer / fiscal officer for 26 years and is in his 5th year with the Vanguard-Sentinel CTC district and has extensive experience with OSFC projects and multiple oversight of grants to include our annual Perkins grant..</p>	<p>BS Finance, Bowling Green, plus extensive continuing education.</p>	10	