

# explore

the new manufacturing



Catalyst Connection's Explore the New Manufacturing Program helps address a leading concern of manufacturing companies — finding skilled workers.

For three decades, Catalyst Connection has been working with manufacturers in southwestern Pennsylvania for continuous improvement. We leverage those relationships to engage them in activities that encourage young people to explore career opportunities in manufacturing.



**CATALYST CONNECTION™**  
Your Strategic Partner for Manufacturing Growth

### **Manufacturing in Southwestern PA**

**3,000 manufacturing companies in the twelve county region**

**Nearly 95,000 people directly employed**

**The average salary in manufacturing is \$59,000**

**25,000 skilled workers are needed over the next 10 years just to replace retirements\***

\*Data obtained from Allegheny Conference and the Three Rivers WIB



### **Manufacturing Innovation Challenge**

This research project brings together the brightest minds of tomorrow's workforce with local manufacturers to engage in hands-on, real-world innovation projects. A team of middle or high school students, tour the company, develop a solution to the company's challenge in the classroom

and then present it to the company. The Manufacturing Innovation Challenge provides a fulfilling learning experience for the students while providing fresh perspectives and solutions to the company.

### **Teacher Training**

Teachers are key influencers on career decisions by their students. Catalyst Connection has designed and implemented a variety of ways for manufacturers to engage with local teachers through professional development opportunities. The goal is to connect the school's STEM (Science, Technology, Engineering, Math) courses with manufacturing career opportunities. These programs have included training on Project Based Learning, tours of local manufacturing companies, advising on curriculum, and lesson plan development.

### **Apprenticeships and Internships**

Many companies need help to create an environment where apprentices and interns can have a successful learning experience. Catalyst Connection builds awareness with manufacturing companies about the benefits of apprenticeship and internship programs; assists employers in developing new programs and/or expand existing programs through customized consulting; and facilitates collaboration among cohorts of small manufacturing companies to leverage efforts, curriculum and best practices.

## The Explore Program

Activities emphasize employer engagement

Approximately 100 teachers have been trained

325 interns were placed in the region

Nearly 300 manufacturers have participated in Explore-affiliated programs in the last 14 years

120 local school districts have participated in Explore programs and partner effort



## Student Video Contest

Regional middle school teams are paired with manufacturers to create a video with the theme, “What’s so Cool about Manufacturing.” Each video communicates an accurate image of manufacturing from the perspective of these young people to their peers, parents and teachers. Teachers receive training on how to guide their teams to use video equipment and develop a storyboard.

Ten schools and ten companies participated in the first year of this initiative. A recognition ceremony was held at Heinz Field to provide awards to videos for: Best Manufacturing Message, Best Marketing Plan, Most Creative and People’s Choice. The popularity for the Student Video Contest has grown to 30 schools and 30 manufacturers planned to participate in the second year.

## Key Regional Partnerships

In addition to the programs managed directly by Catalyst Connection, we partner with economic development, workforce investment, STEM, educational and community organizations, including:

**The Alle-Kiski Best Practices Collaborative**

**America Makes**

**Appalachia Partnership Initiative**

**ASSET STEM Education**

**Beaver County Energy & Advanced Manufacturing Partnership**

**Dream It. Do It.**

**National Fluid Power Challenge**

**National Manufacturing Day**

**National Robotics League**

**New Century Careers**

**Pennsylvania STEMx™ Network**

**Regional Intermediate Units (IUs)**

**Regional Workforce Development Boards**

**Remake Learning**

**STEM Jobs**

**SWPA BotsIQ Robotics**

**Universities and Community Colleges**

**Westmoreland County Forum for Workforce Development**



For more information about Catalyst Connection and the Explore the New Manufacturing Program, contact Scott Dietz:

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**CATALYST CONNECTION**<sup>SM</sup>  
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Catalyst Connection is a private not-for-profit organization headquartered in Pittsburgh, Pennsylvania. We provide consulting and training services to small manufacturers in southwestern Pennsylvania, accelerating revenue growth and improving productivity. Through active collaboration with our clients and the manufacturing community at large, we contribute to the growth, vibrancy, and ongoing robustness of manufacturing in our region.

Catalyst Connection is supported, in part, by the Commonwealth of Pennsylvania, Department of Community and Economic Development, and by the National Institute of Standards and Technology's Hollings Manufacturing Extension Partnership.

To collaborate with other manufacturers and industry experts, visit [www.MyManufacturingConnection.org](http://www.MyManufacturingConnection.org)



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[www.catalystconnection.org](http://www.catalystconnection.org)

## Other Southwestern Pennsylvania Manufacturing and STEM Education Programs

Best Robotics Competition in Grove City

The Digital Badge Lab at the Sprout Fund

CanTEEN – Career Exploration

Carnegie Science Center: Fab Lab

Chain Reaction Contraption Contest

The Challenge Program

Covestro Pittsburgh Regional Science & Engineering Fair

Engineer the Future: Carnegie Science Center

F1 in Schools Challenge

The FIRST LEGO League

FIRST Robotics Competition

Junior Achievement

Kids and Creativity Network

Made Right Here

Maker Faire Pittsburgh

The Making Science Make Sense program

Math Science Collaborative

SeaPerch Program

STEM Summit: Pittsburgh Technology Council

SciTech Days at Carnegie Science Center

Various regional STEM summer camps