



## **FAB5: The Fifth International Fab Lab Forum and Symposium on Digital Fabrication:**

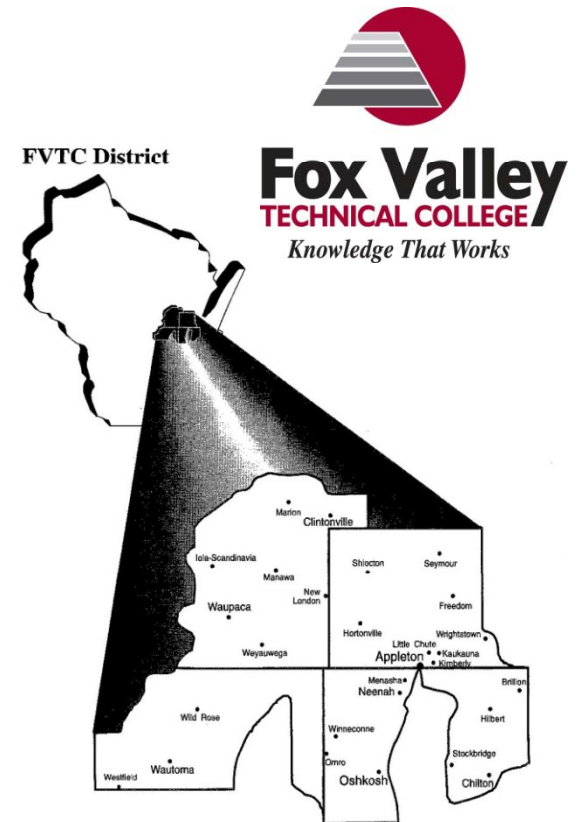
# **Fab Lab Review- Fox Valley Technical College**

**Jim Janisse- FAB LAB Development Manager**



# Profile- Fox Valley Technical College

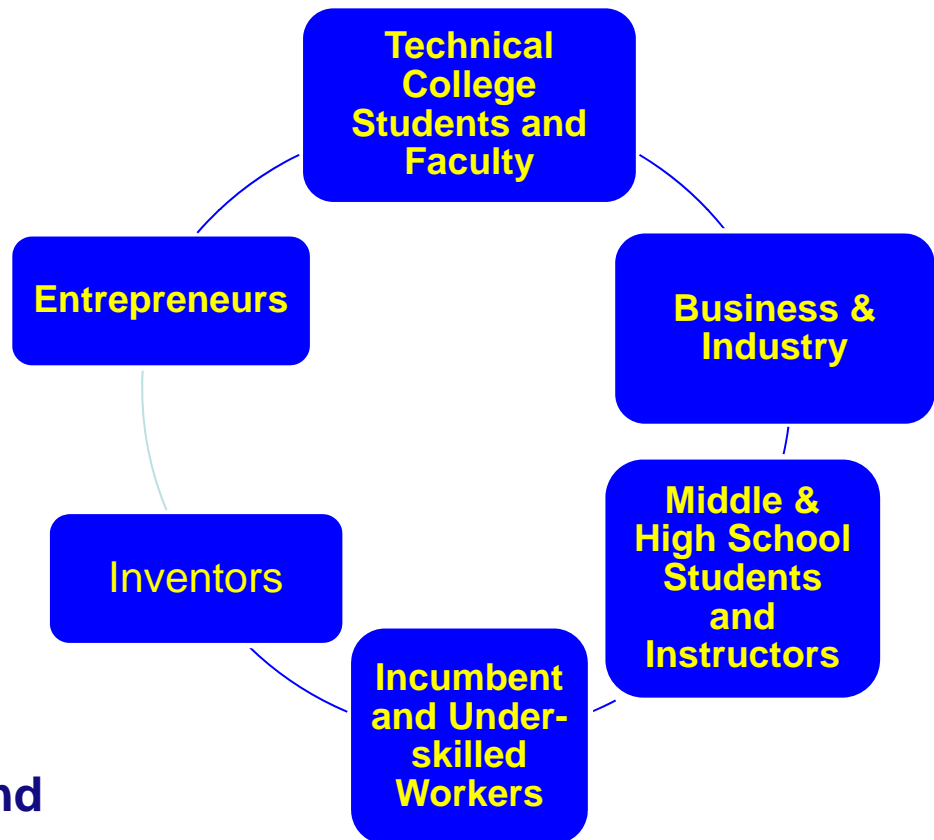
- **Leading institution in the Wisconsin Technical College System (WTCS) for both Advanced Technical Education and Industry Outreach**
- **Recognized nationally as a model entrepreneurial college**
- **Key FVTC Facts :**
  - **Serves a 5 county district in Northeast Wisconsin**
  - **Main campus in Appleton, WI; 5 Satellite Campuses; 8 Training Centers including Criminal Justice Center in Washington, D.C.**
  - **Delivers 79 programs to over 50,000 students each year; extensive array of labs**
  - **Early adopter & leader in technology-based alternative delivery (over 12,000 students served annually by staff of 270 with 50% growth)**
  - **Extensive industry alliance and economic development**



# FVTC Fab Lab Vision- Key Drivers

- **Experiential learning infused into 28 courses in 4 Program areas (IT, AET, MD, EET) at FVTC**
- **STEM (Science / Technology / Engineering /Math) Recruitment in Middle & High Schools**
- **Proof-of-Concept Prototyping for community inventors and entrepreneurs**
- **Collaboration with other tech colleges, universities, and international institutions**
- **Highly-leveraged access to global networking and intellectual capital**
- **Stimulating innovation, invention and economic development in region**

## *FAB LAB STAKEHOLDERS*



- ✓ **Vision:**  
“Reinvent the way people innovate”
- ✓ **Mission:**  
“Provide guided access to the tools, techniques, and technologies needed to translate your ideas into reality.”
- ✓ **Role:**  
“Trusted Innovation Advisor”



# Fab Lab Partner-Venture Center

- **New Business Development**
  - ✓ **e-Seed Program in partnership with e-Myth organization**
- **Small or Existing Business Development**
  - ✓ **PRO-Seed Program**
- **“Corporate Entrepreneur” Development**
  - ✓ **Intrapreneurs Wanted**
- **Credit Offerings:**
  - ✓ **Planning the Entrepreneurial Venture**
  - ✓ **Entrepreneurship Certificate**
- **Business Plan Mentoring**
- **Seminars and Workshops**
- **Customized Technical Assistance**
- **Small Business Coaching**



# Venture Center Impact

## ➤ E-Seed Program (Since 2002)

- ✓ Served 600 people and launched 150 businesses
- ✓ 134 businesses in operation today
- ✓ 2006 economic impact survey of 50 of the 134 in impressively revealed that these business owners:
  - employed 187 people
  - invested \$11.2 million in debt and equity to launch/expand
  - generated \$13+ million in gross sales
  - collected \$332,000 of sales tax
  - paid almost \$75,300 in property taxes
  - paid \$217,838 in payroll taxes



# FVTC Fab Lab Capabilites

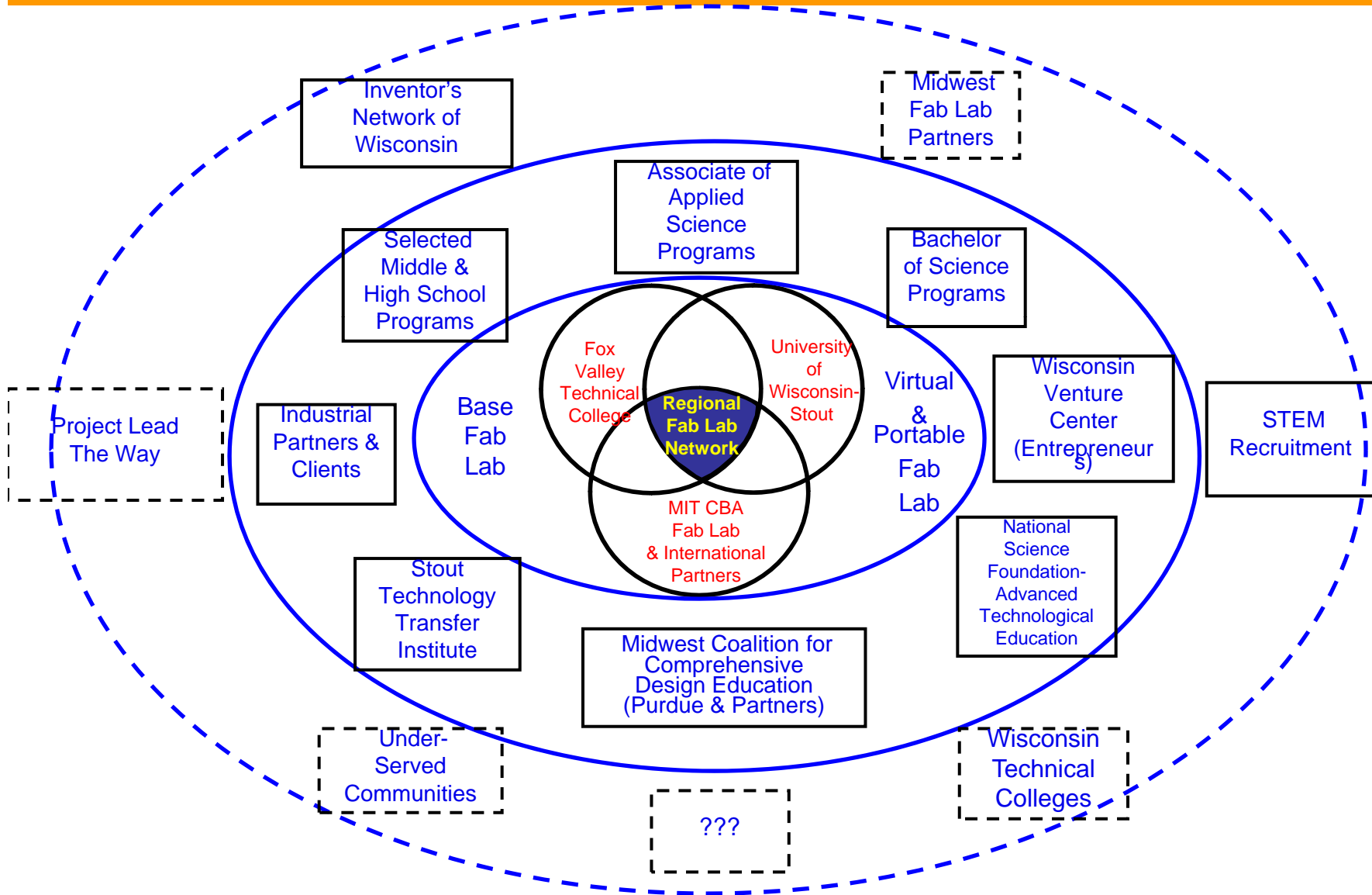


**External  
Fab Labs  
(UW-Stout,  
MIT, WTCS,  
Global  
Partners,  
etc.)**





# FVTC Fab Lab-Regional Network







# FVTC Fab Lab Offerings

- **FREE FOR EVERYONE:** Monthly “Explore the FAB LAB” sessions (First Monday)
- **FREE FOR EVERYONE:** Periodic “Experience the FAB LAB” sessions (Structured hands-on personal fabrication experience)
- **STUDENTS** enrolled at FVTC in over twenty Applied Engineering, Mechanical Design, and Electrical-Electronics-based program courses will start using the Fab Lab for hands-on learning activities in Fall ‘07.
- **ADULT CONTINUING STUDENTS:** We are developing a one-credit, independent study course in *Basic and Advanced Personal Fabrication* for standard course and material fees of \$150-200.
  - **Personal Vinyl Cutter Fab**
  - **Personal Laser Fab**
  - **Personal CNC Milling**
  - **Rapid Prototyping**
  - **Personal CNC Programming**



# FVTC Fab Lab Sustainability

- **ENTREPRENEURS, INVENTORS, AND EXTERNAL CLIENTS** work with the Fab Lab to determine whether a packaged or custom solution is right for them. Our offerings include:
  - **Membership Pilot Program**
  - **Proof-of-Concept Entrepreneur (“Do-It-Yourself”) Package** includes basic materials, five hours of prototyping technical assistance, and product realization planning assistance for simple products.
  - **Proof-of-Concept Services Package** including standard materials, twelve hours of prototyping technical assistance, product realization planning assistance , and hands-on experience for basic products.
  - **Corporate Sponsor**
  - **Custom** If clients have more complex products or don’t want to do the product fabrication themselves, they may work with Venture Center specialists who will review your business objectives and work with FAB LAB engineers to prototype the product and determine if your product is commercially viable

➤ **CAP Services (Program for At Risk Youth)**

- **Fab Lab Course for Credit plus Career Exploration**
- **6 enrollments at FVTC**



➤ **GirlsTECH**

- **Plexus Engineers teach 75 young ladies circuit board design and electronic game fabrication**



➤ **Inventor becomes Fab Lab Prototyping Design Specialist**



➤ **Over 150 Inventors in Fab Lab pipeline; partial list of ideas and patented innovations include:**

- Door adapter for seeing eye dogs
- Window Anti-Condensation Unit
- Exercise equipment
- Medication Organizer
- New Kids Eyewear with Self-Esteem Kit
- Seasonal illuminated decorations
- Attic Scuttle System for homes
- Therapy Tent for students with sensory problems
- Spine Decompression Device
- Ethanol converter
- Painter Clean-up Sink Unit
- Ultra-new Hair Dryer

➤ **2008-9 Highlights**

- 86 Prototypes
- 7 Patent Applications
- 4 Inventions moving to commercialization
- Regional Economic Impact: \$70K





# FVTC Fab Lab Summary

- **2009 MIT Club of Wisconsin Special Award-  
Driving innovation and economic development in the region**
  
- **Futures**
  - **Objet Alaris 30 Prototyper (Installed)**
  - **Fab Lab Upgrades**
  - **Expanded Offerings**
  - **New Innovation Studio**