13th Annual
Tri-Association Manufacturing Conference

Manufacturing Makerspaces:

The Future of Innovation

Michael Skinner, President & CEO

INNOVATION CLUSTER
PETERBOROUGH AND THE KAWARTHAS

KEY PARTNERS

(FUNDING STAKEHOLDERS)

TRENT UNIVERSITY

Fleming College

Ontario Centres of Excellence

City of Peterborough

Federal Economic Development Agency for Southern Ontario
Agence fédérale de développement économique pour le Sud de l'Ontario

Canada

Peterborough Angels
Investing in Entrepreneurs

STRENGTHENING INNOVATION

AND ENTREPRENEURIAL CAPACITY

ASSISTING NEW
COMPANY FORMATION AND GROWTH

GROWING OUR
KNOWLEDGE BASED ECONOMY

DIGITAL TECHNOLOGY

HEALTHCARE TECHNOLOGY

CLEAN / ENVIRO TECH

ADVANCED AGRICULTURE

FAST START
FOSTERING ENTREPRENEURIAL INNOVATION

FASTSTART (18-29)

COMERCIALIZATION OF ACADEMIC RESEARCH

CULTURE OF INCLUSIVE INNOVATION

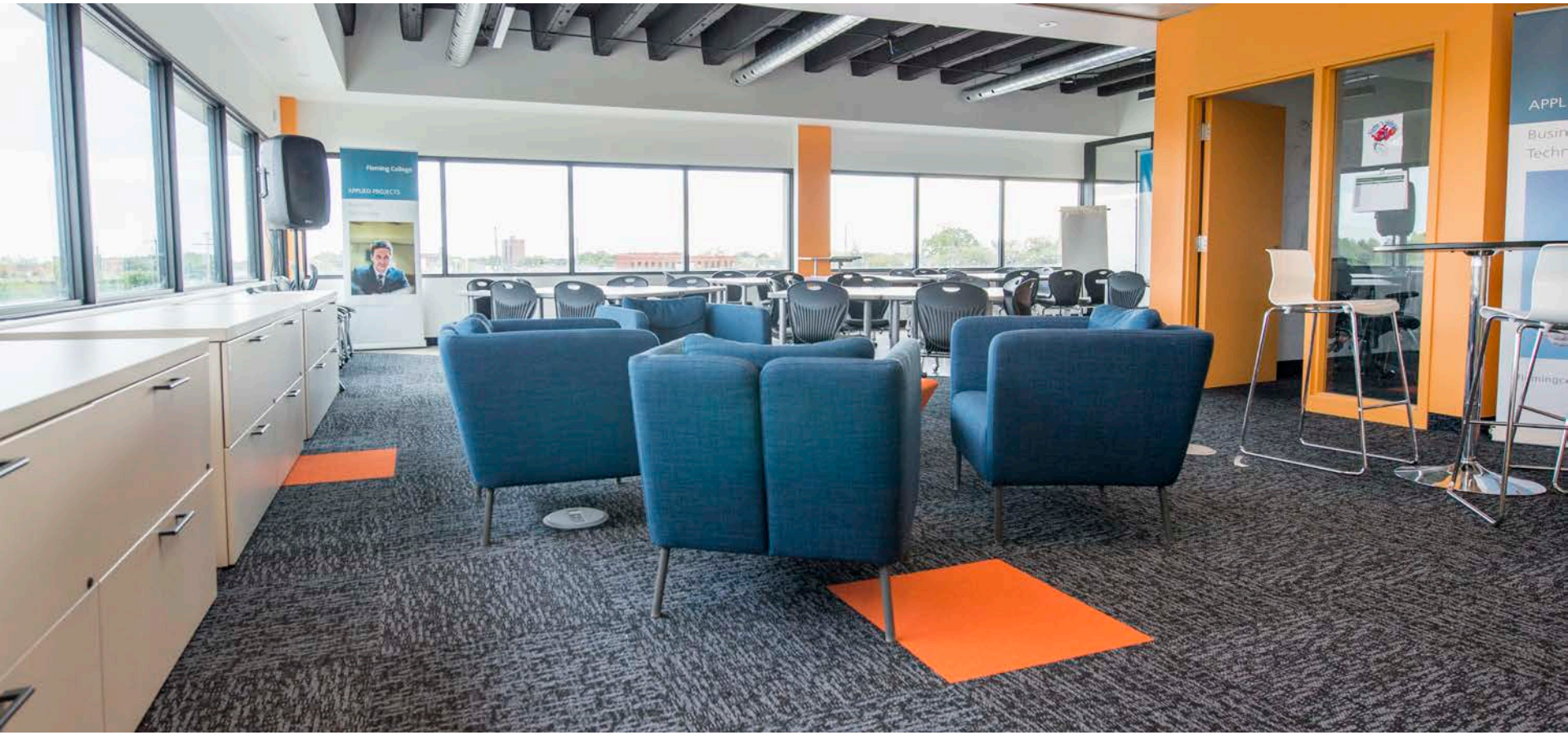
FAST START
FOSTERING ENTREPRENEURIAL INNOVATION

EVENTS

INNOVATION
INCUBATION

APPLIED PROJECTS

Fleming College



EXPERT IN RESIDENCE (ExIR)

KNOWLEDGE PARTNERS

- Bereskin & Parr
- Brant Basics
- Darling Insurance
- Inclusive Advisory
- LLF Lawyers
- Merit Precision
- Part Time CFO
- Peak Benefit Solutions Inc.
- Stewart Group
- Gastle and Associates
- Amer and Associates
- Gauvreau and Associates
- CFDC Peterborough
- SOFII
- MEGA
- Prima IP
- WCKD Marketing
- IRAP
- Konrad Group
- BDC
- Royal Bank

WORKSHOPS

- Growth Wheel
- Pathway to Building a Successful Business
- Intellectual Property Protection
- Marketing 101 / 2.0
- Financial Literacy
- Hands-On (Knowledge Partner Workshops)

ACCESS TO CAPITAL

- Peterborough Angel Network
- Community Futures (CFDC)
- Fed Dev Ontario
- Ontario Center of Excellence (OCE)
- IRAP – National Research Council
- SR&ED (Science Research and Experimental Development)
- OMDC (Ontario Media Development Corporation)
- Business Development Bank of Canada (BDC)

PROMOTIONAL SUPPORT

- Media Relations (Press Releases)
- Social Media
  - Facebook, Twitter
  - Instagram, LinkedIn
- Newsletters / Blog Posts
- E-Mail Blasts

STATISTICS (12 months)

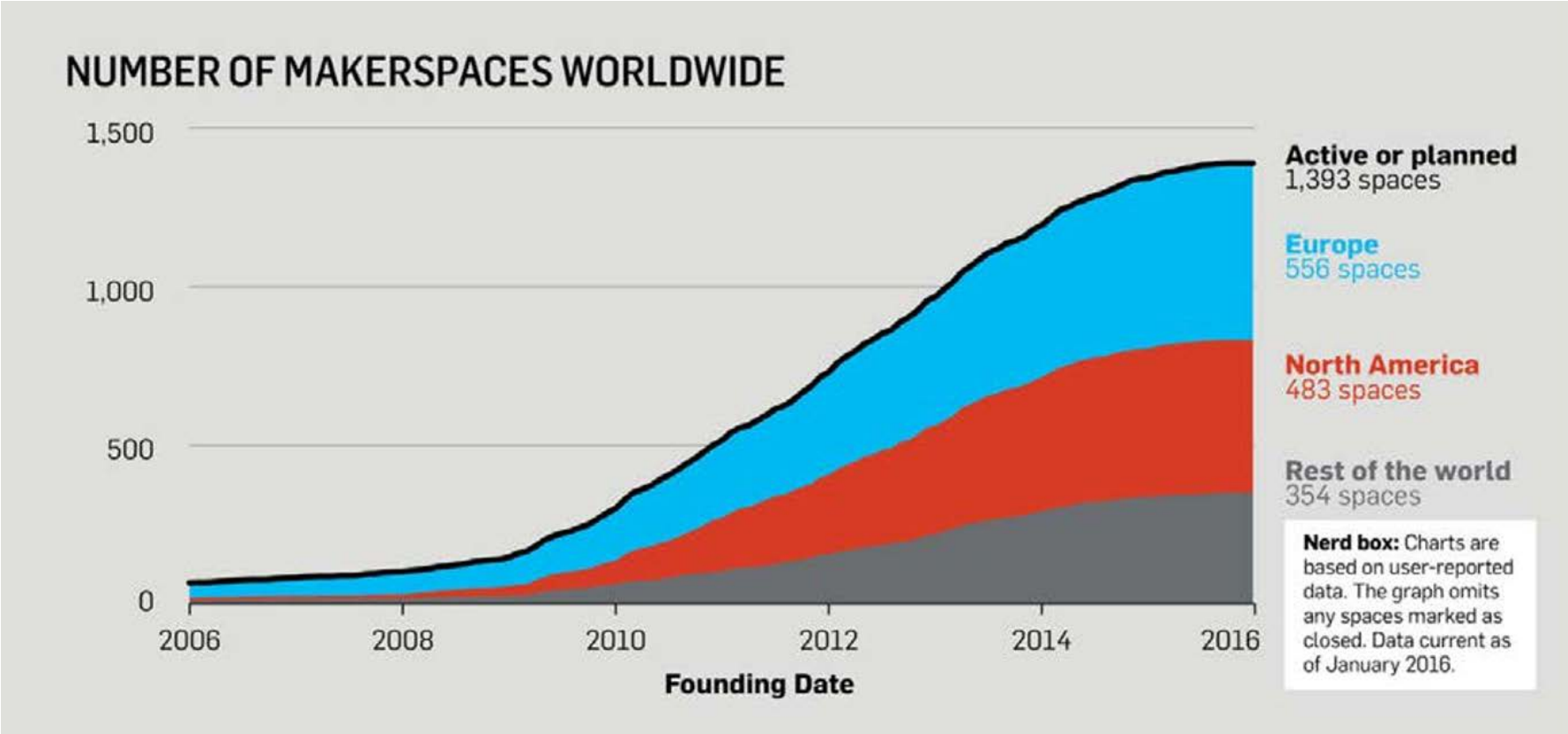
- 24 Innovation Companies
- 62 FT / 40 PT Employees
- 976K in sales
- 190K in personal investment
- 11.7 Million in equity investment
- 265K in Loans / 598K in Grants

- 15 Youth Companies (19-29)
- Top 10 - Campus Lead Accelerator
- 1,550 Youth Outreach

MAKERPSACES

MAKERSPACE: The makerspace is modeled after hackerspaces or incubators and is the result of the efforts of MAKE: magazine, which started in January 2005 to promote 'do-it-yourself' (DYI) projects.

2006 – 2016

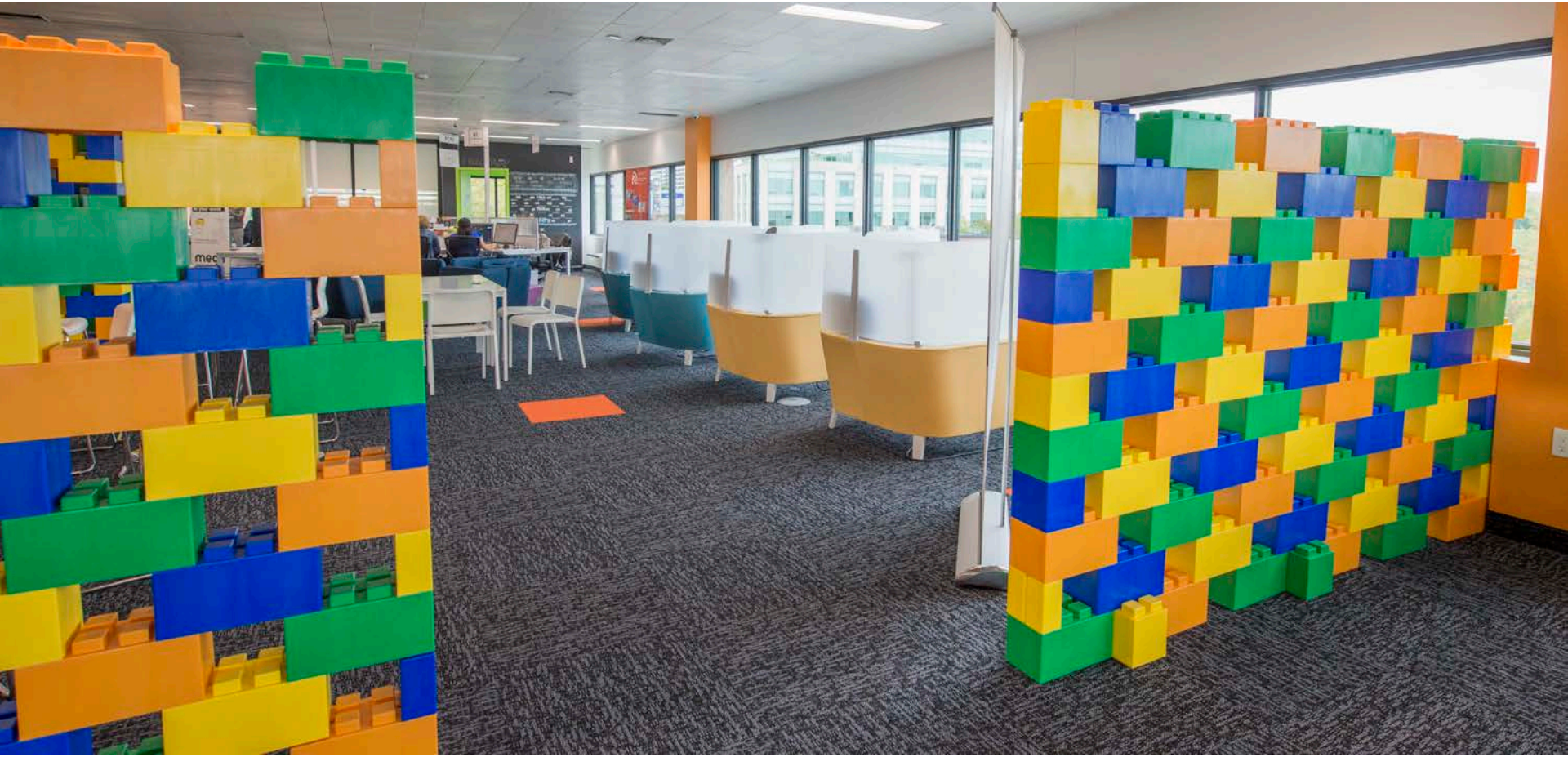


Peek, K. (2016, February 23). By The Numbers: The Rise of the Makerspace. April 11, 2016

INNOVATION
INCUBATION

DOWNTOWN CUBE

VR / AR Makerspace



TRENT CUBE

CleanTech Makerspace

WHAT IS A MANUFACTURING MAKERSPACE?

PHYSICAL SPACE

- Dedicated space 1,500 – 10,000 SQ Feet.
- Common tools room.
- Collaborative lounge, breakout rooms, board rooms, loading bay.

EQUIPMENT

- CNC routers
- Laser or plasma cutters
- Welders
- Woodworking tools
- 3D printers
- Drafting Computers
- Hoists
- Hand tools
- Forklifts & Pump Carts

CLASSES

- **Metalworking Tool Training 101**: *Learn to pick the right saw, drill holes and grind burrs.*
- **Tool Training, 3D Printer:** *Learn to operate a 3D printer.*
- **Basic MIG Welding:** *How to use as well as a refresher course.*
- **Tool Training, CNC Plasma Cutter:** *CAD drawings into patterns cut from metal sheet.*

TYPICAL PROFILE

- Early stage growth companies.
- Passion for making of products.
- A proven track record.
- Future focus.
- Products with international impact.
- Ambition, commitment to grow the company.
- Team of 2 to 25 people.
- Action focussed mindset.

INDUSTRY FOCUS

- Biobased and recycled plastics.
- Advanced manufacturing.
- Additive manufacturing.
- Machine builders.
- ICT *(Software for design and control of flexible manufacturing).*
- Smart technology.
- Wearable technology.
- Sensor technology.
- 3D printers.

SUCCESS STORIES

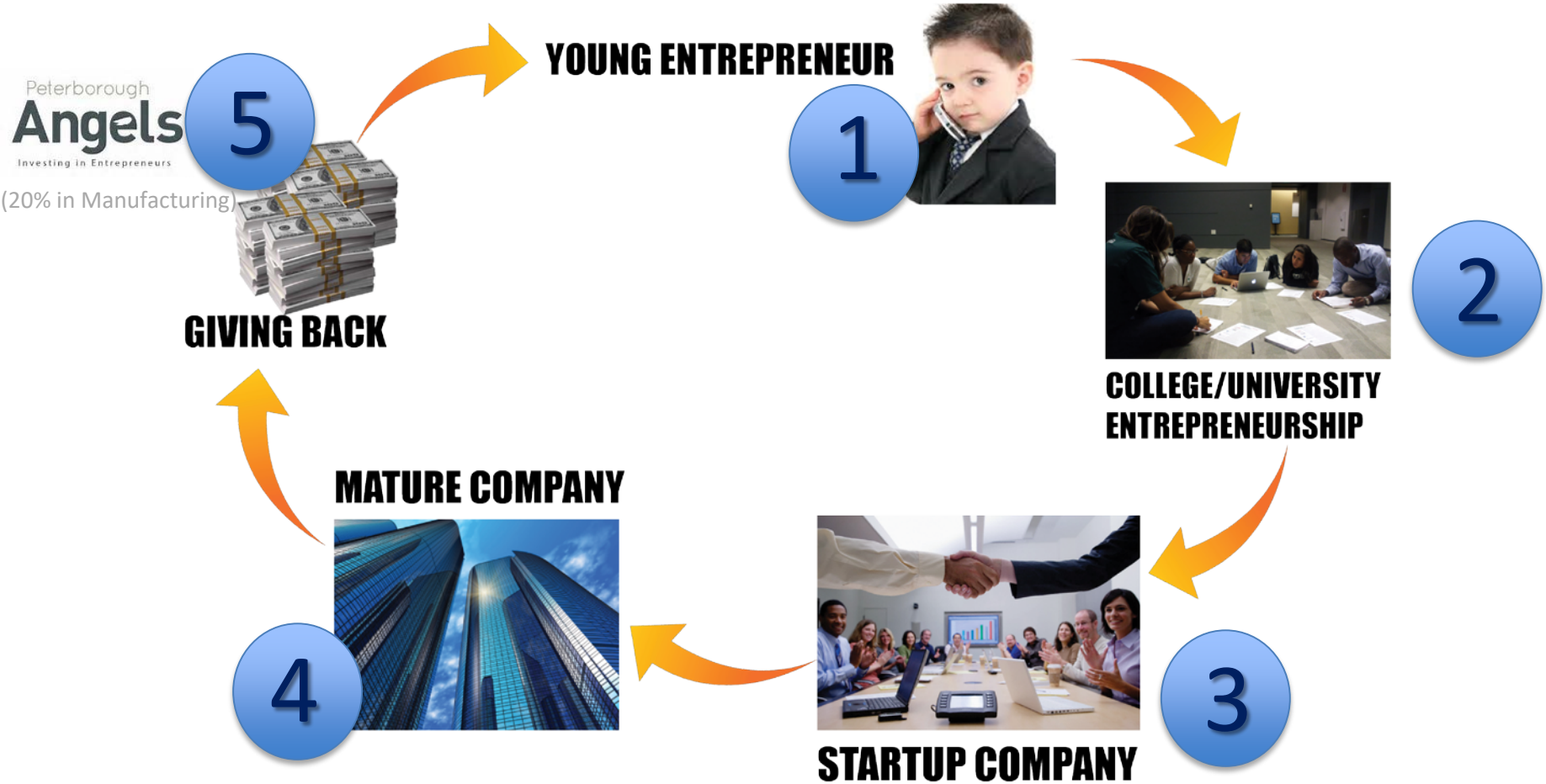
- Sheridan College CAMDT Makerspace Creative Hub in Brampton- Partnership with CanadaMakes. (Focus on additives)
- TechShop and FabLabs – MIT
- Columbus Idea Foundry — 65,000 s/f
- SuGu Warehouse B.V (Netherlands) – 200,000 s/f

RECAP

Manufacturing Makerspace is:

- Key Partners: Academic, Government, Private Sector.
- Collaborative & Inclusive Environment of Innovation.
- Events & Guest Speakers.
- Experts in Residence & Knowledge Partners.
- Workshops & Courses.
- Access to Capital.
- Promotions Support.
- Shared access to Equipment.
- Dedicated Space.

LIFE CYCLE OF ENTREPRENEURS



QUESTIONS
ANSWERS