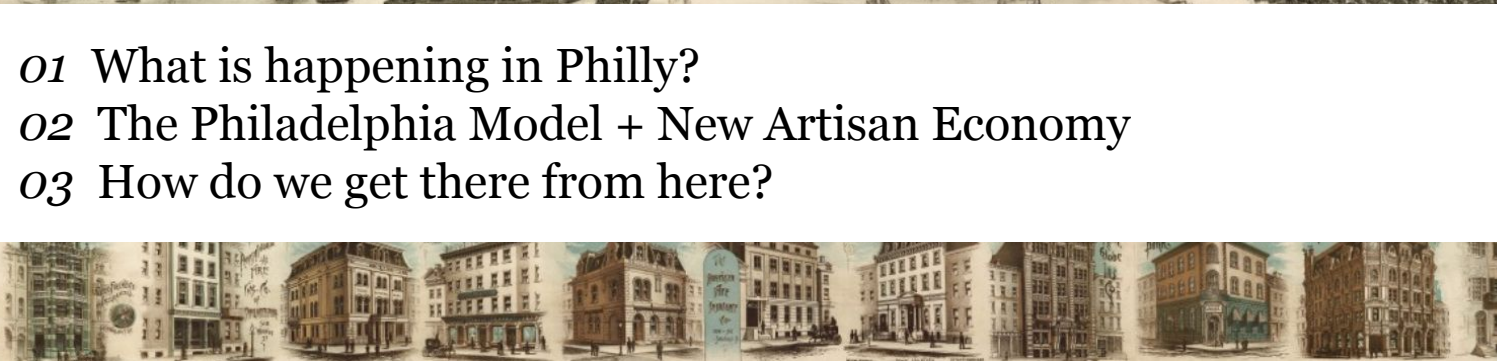


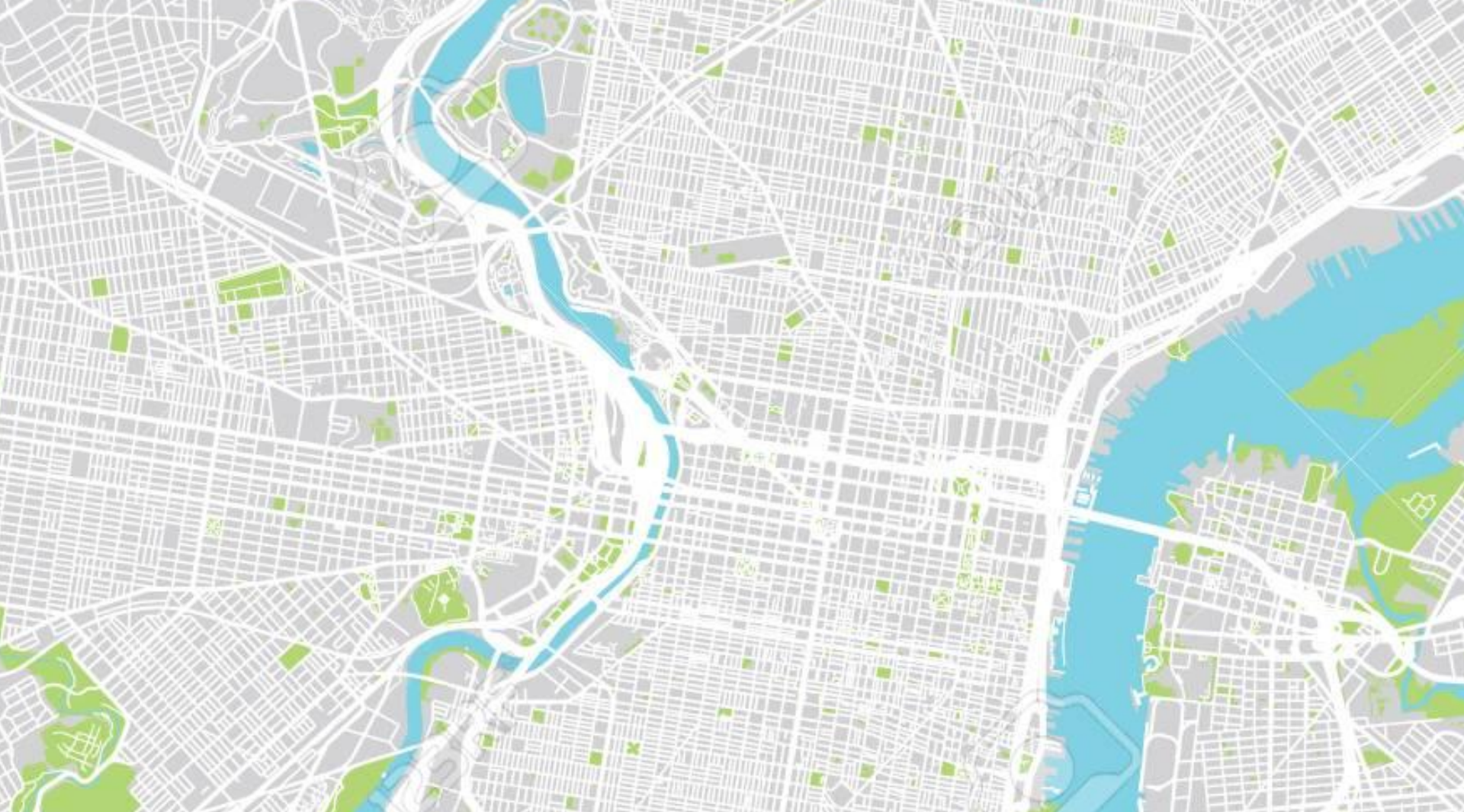


# ***Growing Philadelphia's Artisanal Economy***

***CraftNOW-PIDC Roundtable  
November 7, 2019***



- 01 What is happening in Philly?
- 02 The Philadelphia Model + New Artisan Economy
- 03 How do we get there from here?

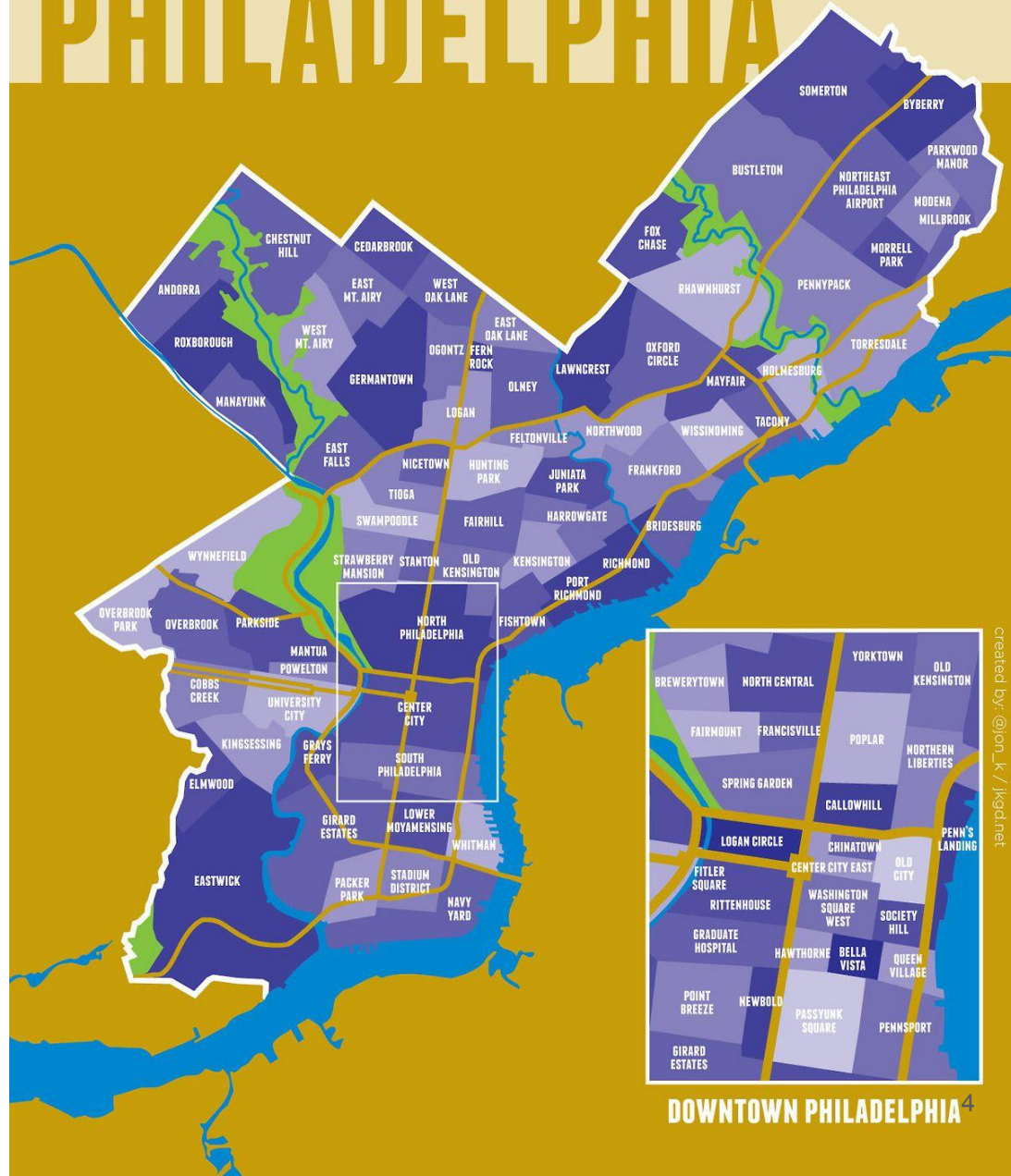


## ***01*** What is happening in Philly?



*Philadelphia* is a  
City of *Neighborhoods*

# THE NEIGHBORHOODS OF PHILADELPHIA



# ***Philadelphia*** is a City of ***Maker Communities***

- . Maker Community
- . Craft Community
- . Art Community
- . Design Community
- . SM\* Manufacturing Community

\* small and medium sized, under 500 employees

# ***Philadelphia*** is a City of ***Maker Communities***

## **. Maker Community**

- \_ engineers, scientists, biologists...
- \_ smart and traditional products
- \_ traditional / analog tools
- \_ contemporary / digital tools
- \_ hybrid technology
- \_ hobby to professional
- ...

## **. Craft Community**

- \_ metal workers
- \_ wood workers
- \_ fiber and textile workers
- \_ ceramicist
- \_ hobby to professional
- ...

## **. Art Community**

- \_ painting, sculpture, etc.
- \_ hobby to professional
- ...

## **. Design Community**

- \_ designing physical products
- + housewares and furniture
- + apparel and soft goods
- + transportation and city planning
- \_ designing digital products
- + apps, graphics, and websites
- + media and entertainment
- \_ freelance to part time to full time

## **. SM manufacturing Community**

- \_ batch production
- \_ job shops
- \_ dedicated production facilities
- \_ industry 4.0
- \_ legacy manufacturing
- ...

# ***Philadelphia*** is a City of ***Maker Communities***

- . Maker Community
- . Craft Community
- . Art Community
- . Design Community
- . SM Manufacturing Community
- . *iOT + Smart City Community*
- . *Innovation Community*

# ***Philadelphia*** is a City of ***Maker Communities***

- . Maker Community
- . Craft Community
- . Art Community
- . Design Community
- . SM Manufacturing Community
- . IoT + Smart City Community
- . Innovation Community

... and ***their supporters***

- . *Community Development Orgs.*
- . *Economic Development Orgs.*
- . *Education and Training Orgs.*
- . *Local (National, and International) Markets*
- . *Friends and Family*

# ***Philadelphia*** is a City of ***Maker Communities***

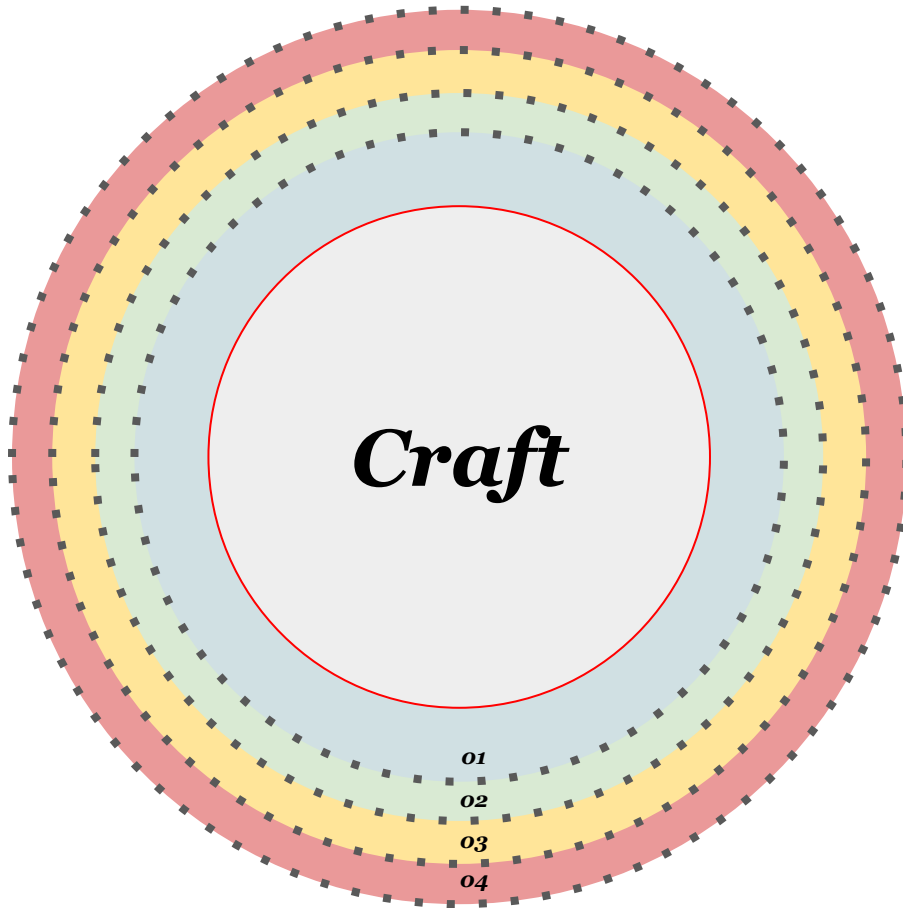
- . Maker Community
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... and ***their supporters***

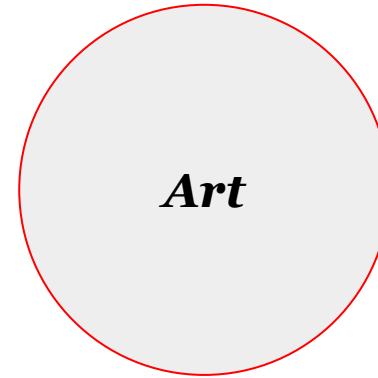
- . Community Development Orgs.
- . Economic Development Orgs.
- . Education and Training Orgs.
- . Local (National, and International) Markets
- . Friends and Family

***+ individuals doing the same work, or wanting to do the same work, and not engaged with the larger community ...***

***+ individuals and businesses who would do business with members of these communities ...***



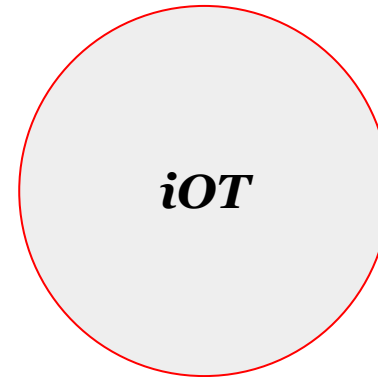
01 Education & Training Orgs.  
02 Community & Economic Orgs.  
03 Markets  
04 Friends and Family



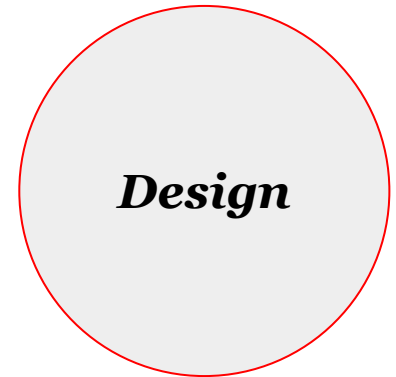
***Art***



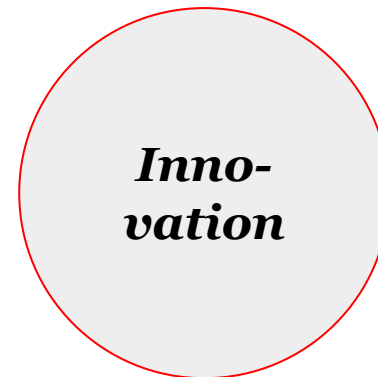
***Maker***



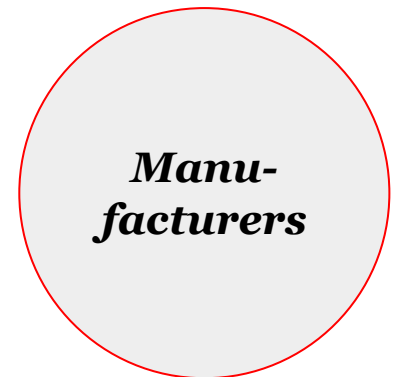
***iOT***



***Design***



***Inno-  
vation***



***Manu-  
facturers***

# ***Philadelphia*** is a City of ***Maker Communities***

## ***In October and November ...***

- . ***Design*** > DesignPhiladelphia, Oct. 2 - 13
- . ***Maker*** > Maker Faire, Oct. 6
- . ***SMMs*** > DVIRC Manufacturing Summit, Oct. 17
- . ***Innovation*** > BPHL Innovation Festival, Oct. 15 - 17
- . ***Craft*** > CraftMONTH, Nov. 1 - Dec. 6
- ...

A diagram consisting of a 2x4 grid of circles. The top row contains four circles with the words *Maker*, *Craft*, *Design*, and *Art*. The bottom row contains three circles with the words *iOT*, *Inno-  
vation*, and *Manu-  
facturers*. The fourth column in the bottom row is empty. The circles are light gray with a thin red border. The grid is defined by three vertical and one horizontal dotted line.

***Maker***

***Craft***

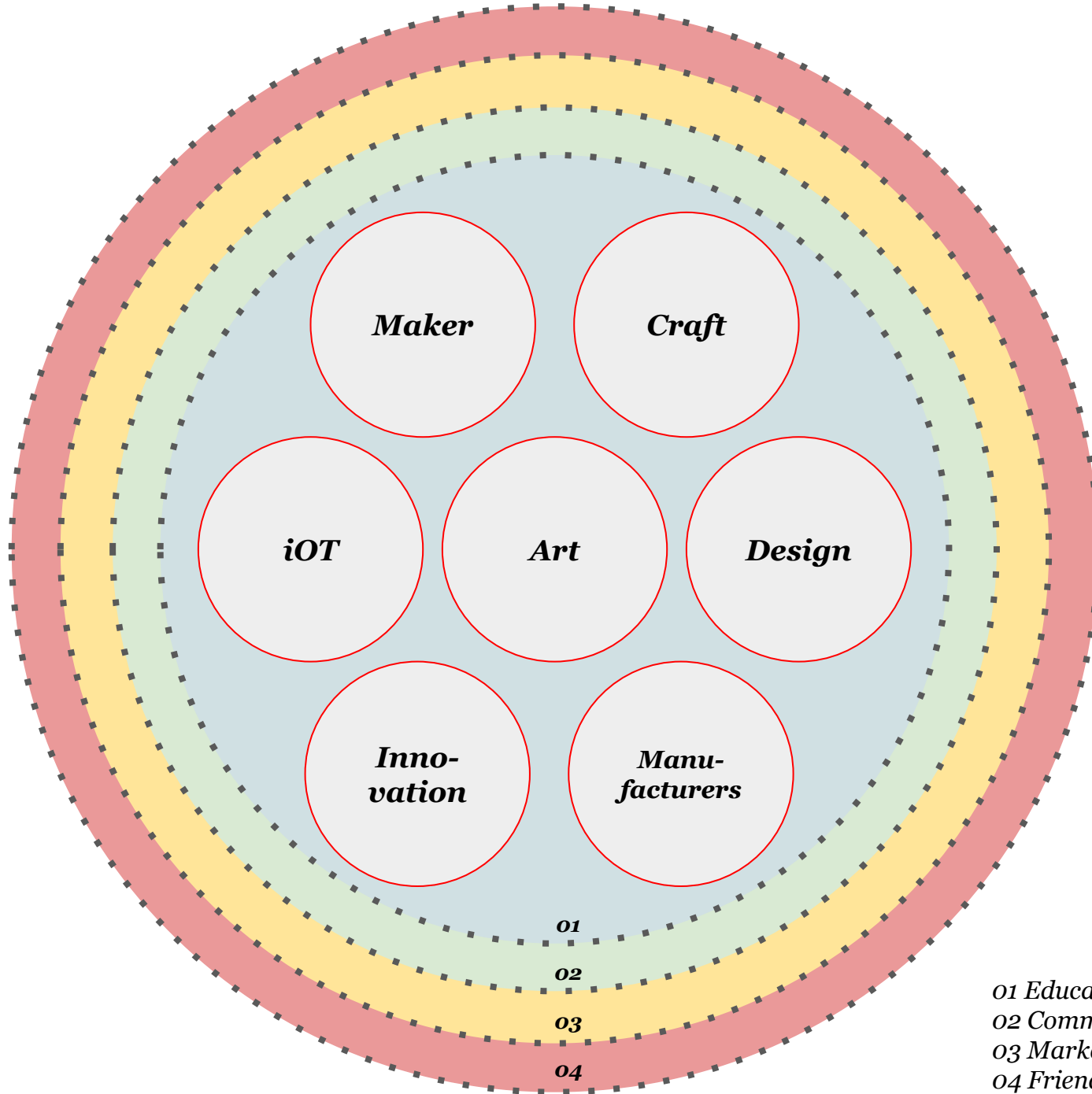
***Design***

***Art***

***iOT***

***Inno-  
vation***

***Manu-  
facturers***

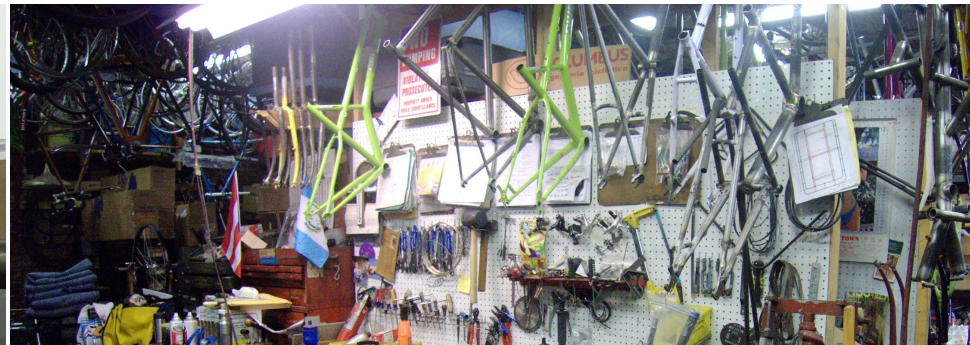
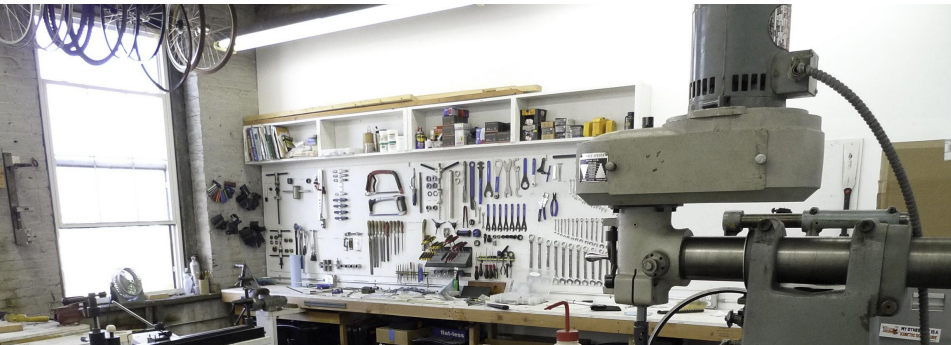


01 Education & Training Orgs.  
02 Community & Economic Orgs.  
03 Markets  
04 Friends and Family

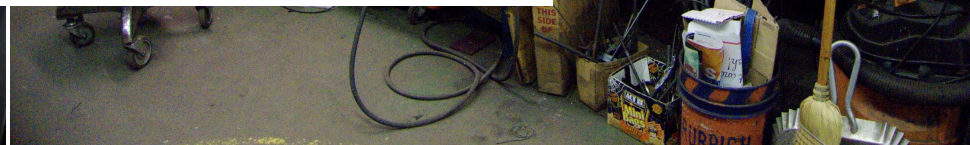
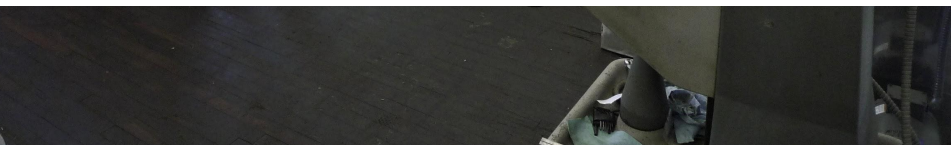


*Should we **unify** all communities?*

*Do all communities **need or want** the same things?*



## **02** The Philadelphia Model + New Artisan Economy



“From roughly 1880 through the 1920s, ***Philadelphia's industrial districts supported an array of mills and plants whose diversity has scarcely been matched anywhere in the history of manufacturing.*** When the U. S. Census charted some three hundred categories of industrial activity, surveys of Philadelphia showed firms active in nearly ninety percent of them ... Unlike New England centers that often focused on a single sector, ***Philadelphia could and did do nearly everything across the spectrum of transforming materials into products.***”

- Workshop of the World  
[www.workshopoftheworld.com](http://www.workshopoftheworld.com)

## ***Historic Philadelphia Manufacturing Model ...***

- . Company owned by family of skilled individual(s).
- . Combined production, design, and business.
- . Small company (1 to 50?) employing skilled workers.
- . Diverse set of talents under one roof.
- . Focused on high quality, diverse products.
- . Focused on ongoing innovation.
- . Businesses would collaborate to meet demand.
- . Sales department would travel to find customers.
- ...

## ***New Artisanal Manufacturing ...***

“The term ‘artisanal manufacturing’ can be used to describe the ***production of quality products by skilled workers***, prioritizing customer value over cheap prices. The following principles define this new value proposition:

1. Quality Over Quantity
2. Customers Over Capital
3. Demand Scaling Over Supply Scaling
4. Technology Can Deliver Customer Value
5. Labor Is Not Just an Expense.”

- Forbes.com | Artisanal Manufacturing:  
Creating Jobs To Produce Things In America Again

## ***New Artisanal Manufacturing ...***

"The coming decade will see continuing economic transformation and the emergence of a new artisan economy. Many of the new artisans will be small and personal businesses — ***merchant craftspeople producing one of a kind or limited runs of specialty goods for an increasingly large pool of customers seeking unique, customized, or niche products.***

***These businesses will attract and retain craftspeople, artists, and engineers looking for the opportunity to build and create new products and markets...***

## ***New Artisanal Manufacturing ...***

"The new artisan economy will see rapid growth in the formation of small and personal (one person) businesses. The ***artisans will create new organizational structures and provide greater opportunities for work-life balance.***

These small and personal businesses will be run by a ***diverse group of entrepreneurs with a wide range of business objectives***, but many will choose to join the ranks of the new artisans to match their work with their values...

# ***New Artisanal Manufacturing ...***

## ***Supporting Factors:***

1. Small businesses will be better positioned than large corporations to ***provide customers with highly targeted, customized, and relevant products.***
2. ***New manufacturing technologies*** will allow small businesses to lead the market in meeting demands for customization
3. ***Plug-and-play infrastructures*** will make small businesses more competitive and successful.
4. ***Social networks will fuel borderless commerce.***
5. Small business diversity, particularly those businesses established by immigrant entrepreneurs, will help ***increase cross border trade and unlock new opportunities for all small business owners.***

- Intuit Future of Small Business Project  
The New Artisan Economy

# ***New Artisanal Manufacturing in Philadelphia...***

- . Alice Alexandra*
- . Amuneal*
- . BDDW / M Crow / Bury Your Dead Downwind*
- . Edgewood Made*
- . Felt+Fat*
- . Grant BLVD*
- . Hamid Holloman*
- . Peg+Awl*
- . Printfresh / Voloshin / Paperbox Studio*
- . ReLoad Bags*
- . Rooted Soles*
- . Windle Mechanical Solutions*

*... not an exhaustive list!*

# ***New Artisanal Manufacturing in Philadelphia...***

## ***Common among today's companies ...***

- . Company owned by skilled individual(s).
- . Combine production, design, and business.
- . Small company (1 to 50?) employing skilled workers.
- . Diverse set of talents under one roof.
- . Focused on high quality, diverse products, batch production.
- . Focused on ongoing innovation.
- . Businesses collaborate to meet demand.
- . Sales are all of the globe.
- ...

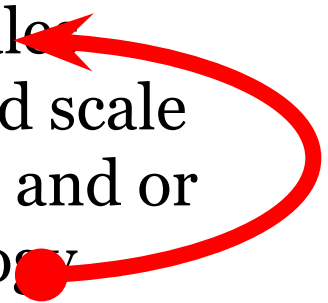
# ***New Artisanal Manufacturing in Philadelphia...***

## ***Common among today's companies ...***

- . Emphasize positive impact
  - ... social, economic, and environmental
- . Support living wage and skill development
  - ... provide opportunity to improve company
- . Seeking stable scale
  - ... not pursuing infinite growth,
  - ... looking for the right balance for the company
- . No exit strategy
  - ... about creating meaningful work

# New Artisanal Manufacturing...

## Life cycle ...

- Early Career** . Maker skill development (prior to starting a business).  
Exposure to business and design practices
- Starting** . Identify opportunity and motivated to go after it!  
Start production and test market (*Lean Startup*)
- Scaling** . Early sales, reinvest and scale  
    — bring on employees ... and or  
    — invest in new technology  
Expand production and sales  
Increase sales, reinvest and scale  
    — bring on employees ... and or  
    — invest in new technology
- Sustain** . Finding balance
- 

# ***New Artisanal Manufacturing...***

## ***Definition ...***

A business ....

... who's core focus is integrating innovative uses of materials and making technology to design, produce, market, and sell products.

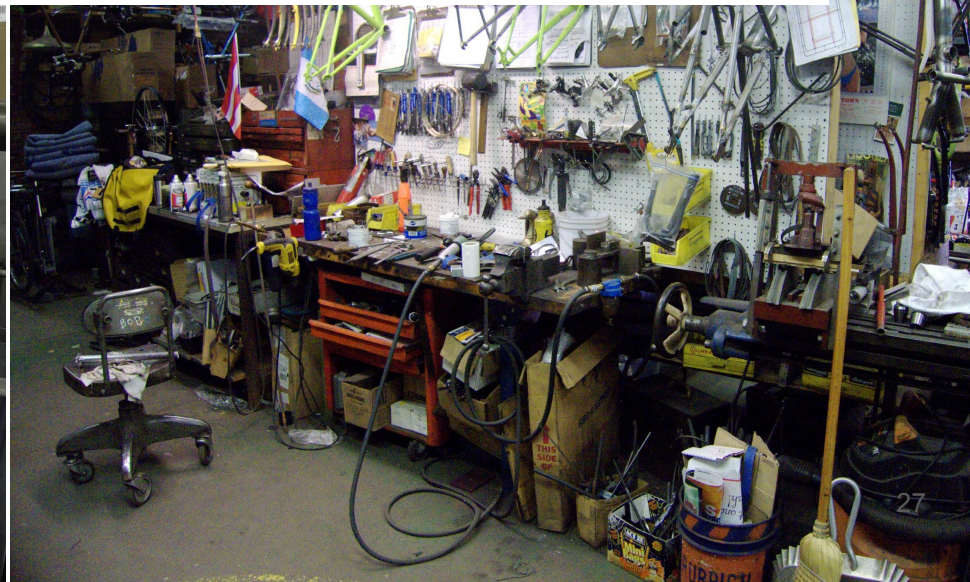
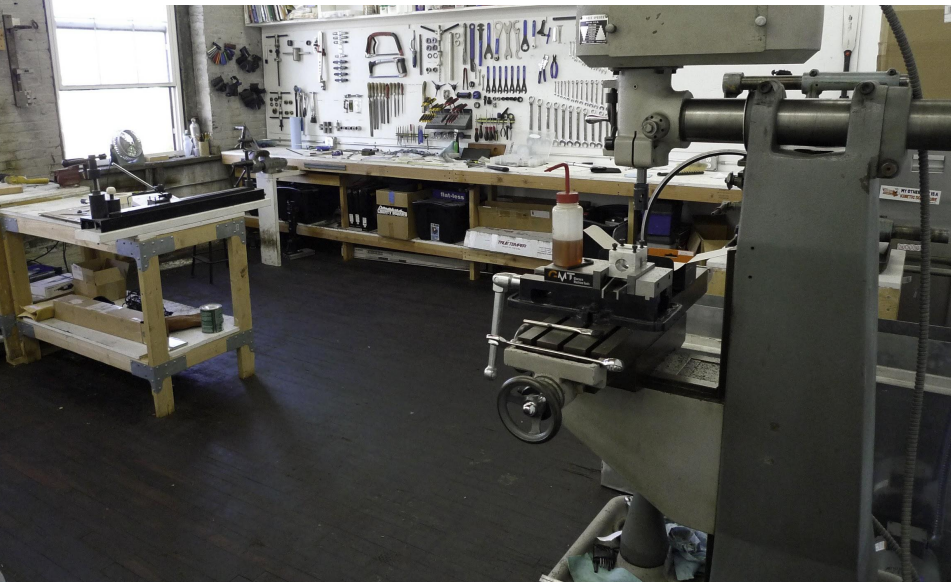
## ***AND***

... values people\*, planet, and profit, and shares these values through the care it puts into its products and treatment of employees and community.

*\* people along all parts of supply chain from material source to customer*



Is there really *opportunity for all*?  
Is this *just a trend*?



# ***New Artisanal Economy...***

## ***New Economy ...***

### ***The Long Tail ...***

1. Democratized Production
2. Democratized Distribution
3. Connect Niche Supply and Demand

### ***Economics of Abundance ...***

1. Maker Movement Ongoing Expansion
2. Technophilantropists & New Funding Models
3. The Bottom Billion

### ***Urban Sustainability goals ...***

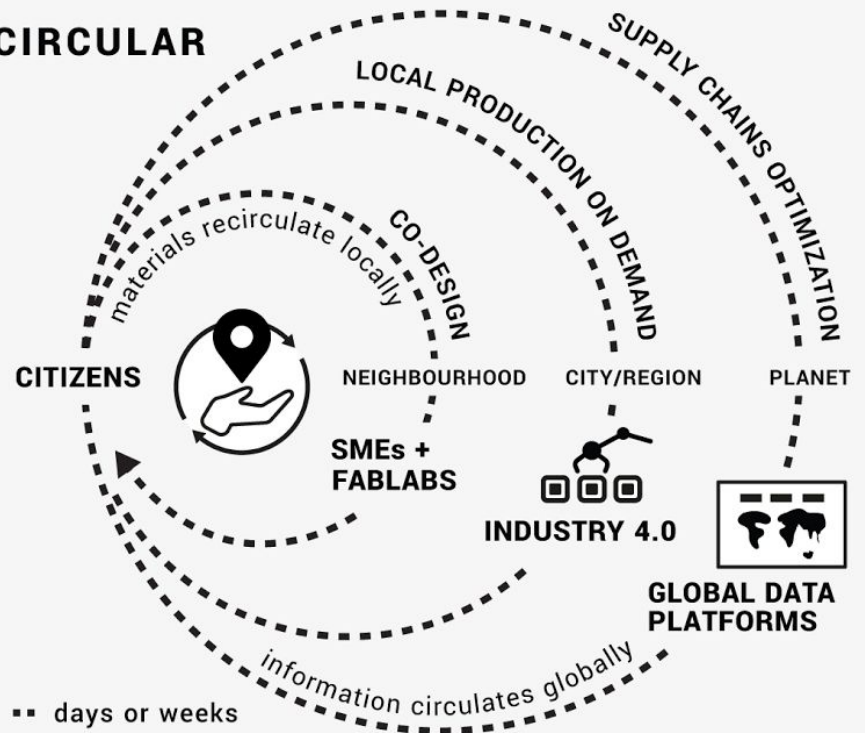
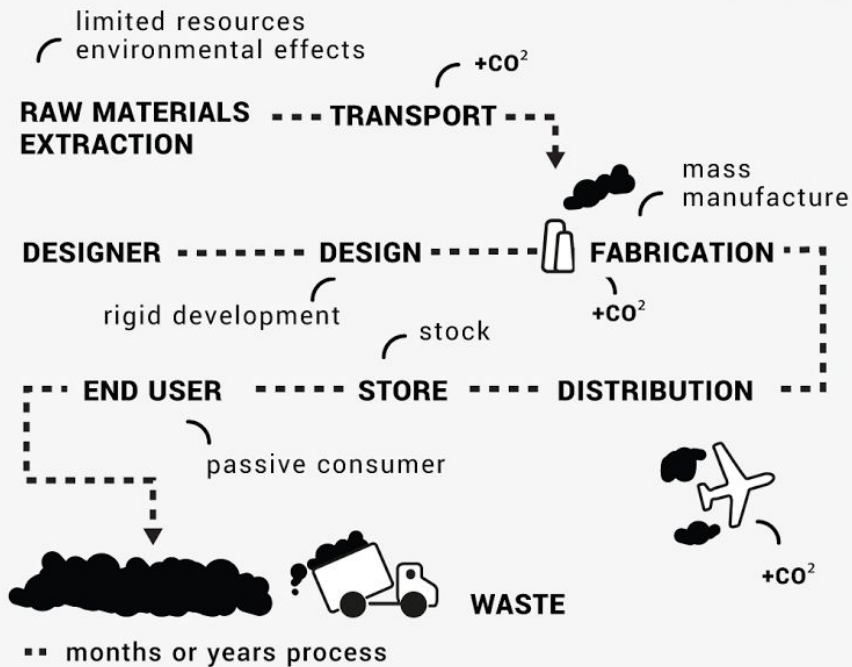
### ***Inclusive Economy goals ...***

New Artisan Economy  
*is built on ...*

Thriving community of  
New Artisanal Manufacturing  
*which start with ...*

***Maker Skill Development +  
Exposure to Business and Design***

## LINEAR VS CIRCULAR



**03** How do we get there from here?

*How do we design,  
make, build, and scale  
an artisan economy?*

1. ***Individuals*** wanting to work in and or start a Artisanal Manufacturing business need access to ...

Education and work opportunities to learn maker, design, and entrepreneurial skills.

### ***Access to Education - Making Non University***

- . Center for Art and Wood
- . Clay Studio
- . CraftNOW
- . Handcraft Workshop
- . Hive76
- . Made Institute
- . NextFab
- . Metal Incorporated
- . Philadelphia Fashion Incubator
- . Philadelphia Woodworks
- . Public Workshop

### ***Access to Education - University***

- . University of the Arts
- . Moore College of Art
- . Temple U. / Tyler School of Art
- . University of Pennsylvania School of Design
- . Jefferson University - DEC School
- . Drexel University Westphal School

### ***Design and Business Incubation Programs***

- . University of Pennsylvania - Pennovation
- . University of the Arts - Corzo Center
- . Drexel University - Drexel's Baiada Institute
- . Philadelphia University - Blackstone LaunchPad
- . Jefferson Hospital - MED Studio@Jeff Med
- . NextFab - Rapid Accelerator

### ***Maker / Design Programs - High School***

- . Mast Charter School
- . Workshop School

### ***Physical Hubs / Real Estate Developers***

- . 1241 Carpenter Studios
- . Arts and Crafts Holdings
- . BOK
- . Crane Arts
- . Globe Dye Works
- . Herman St Studios
- . Maken Studios
- . NextFAB (x3)
- . Sherman Mills
- . The Loom / Amber Street Studios
- . The Studios at 2202 Alter
- . Viking Mill

### ***Small Business Service Providers***

- . PIDC (Philadelphia Industrial Development Corporation)
- . Community College of Philadelphia
- . Philadelphia Works Inc
- . Maker Meetup Philadelphia
- . Merchant's Fund
- . Commerce Department
- . Council of Adult Education and Learning
- . SBA
- . PHLMade (?)
- . Enterprise Center
- . Capital Consortium
- . Ben Franklin Technology Partners
- . Center for Functional Fabrics (Drexel)
- . Chambers of Commerce
- . Community Development Corporation
- . DVIRC
- . Small Business Development Centers
- . UPenn's Intellectual Property / Legal clinics

...

1. **Individuals** need access to education and work opportunities to learn maker, design, and entrepreneurial skills.

Lots of opportunity for some ...

- . those already aware.
- . those already exposed to, and supported to pursue, this career and entrepreneurship path.
- . those already with ability to pay for and access training and career change.

## 2. Artisanal Manufacturing ***Businesses*** need access to ...

***phase one*** (of business development) [school, garage, kitchen, etc.]

- \_ technology access
- \_ mentors
- \_ markets

***phase two*** [initial growth]

- \_ capital for technology and workforce
- \_ small dedicated space
- \_ markets

***phase three*** [second expansion]

- \_ capital for technology and workforce
- \_ larger dedicated space
- \_ markets

***phase four*** [finding balance]

- \_ business services -- bookkeeping, calculating risk, etc.
- \_ markets

2. **Businesses** need access to capital for technology, workforce, and space.

### ***Low investment in this sector ...***

- . This segment is seen as having low to no ROI.
- . Investment community is focused predominantly on money ROI only, rather than holistic view or impact on city view.
- . Philly's investment circle is very small and very focused on meds, digital products, and unicorns.
- . Artisan business owners are risk averse and don't pursue or seek out capital.

3. The Artisanal Manufacturing ***Community*** need access to ...

- . Relationships in and across sector

- . Workforce development support

- . Shared resources

- . Engaged supporters

  - ... from individuals to city gov. and anchor institutions

- . Hub / centralized organization

- ...

1. ***Individuals*** need access to education and work opportunities to learn maker, design, and entrepreneurial skills.
2. ***Businesses*** need access to capital for technology, workforce, and space.
3. The Artisanal Manufacturing ***Community*** needs access to relationships, shared resources, engaged supporters, and centralized hub to create ecosystem of 1 and 2.

## *Learning from other cities ...*

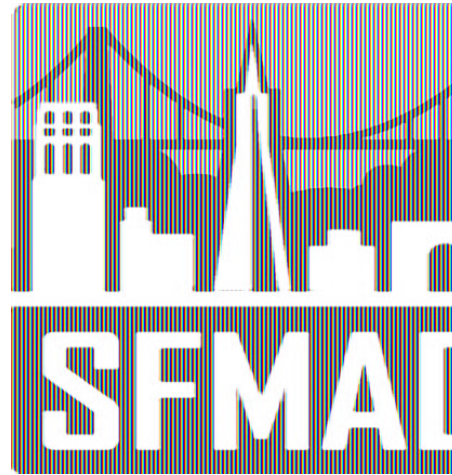
- . Local Brand Initiatives
- . Fab Labs
- . Investment and Funding
- . Centers for New Industry
- . Fab City

# Local Branding ...

“Locally-made brands create a distinct, place-based identity for goods fabricated in cities. ***They connect makers to one another, helping them to differentiate their products and access new markets. They host flexible spaces for manufacturers to fabricate their products, assist businesses in navigating government programs, and provide a centralized platform for web-based marketing.***

They are consumer facing, helping purchasers to proudly connect to and support the local economic fabric of their cities. And, it is through these purchasers that makers are able to more broadly tell their story about the important role they play in their city’s economy. There’s something in it for everyone when you’re starting a local brand platform.”

- Urban Manufacturing Alliance |  
Communities of Practice: Local Branding



# *Local Branding ...*

## *Development stages ...*

- . Community engagement
- . Launch and maintain shared marketing materials
- . Launch and maintain shared retail platforms
- . Business support programming
- . Advocacy for community
- . Increasing scale of community

## *Key stakeholders ...*

- . Brand developers and managers (lead org.)
- . Individual businesses
- . Community supporters
- . Economic development offices
- . City governments

## *Fab Labs ...*

***“Our mission is to provide access to the tools, the knowledge and the financial means to educate, innovate and invent using technology and digital fabrication to allow anyone to make (almost) anything.*** A Fab Lab, or digital fabrication laboratory, is a place to play, to create, to learn, to mentor, to invent: a place for learning and innovation. Fab Labs provide access to the environment, the skills, the materials and the advanced technology.

The Fab Lab Network is an open creative community of fabricators, artists, scientists, engineers, educators, students, amateurs and professionals located in more than 100 countries and 1,750 Fab Labs across the globe. ***This community is simultaneously a manufacturing network, a distributed technical education campus, and a distributed research laboratory working to digitize fabrication, inventing the next generation of manufacturing and personal fabrication.***

- Fab Lab Foundation

## ***Development stages ...***

- . Build labs and develop programming
- . Engage with surrounding community
- . Support development pathways into and out of labs
- . Build bridges to regional network
- . Build bridges to international network

## ***Key stakeholders ...***

- . Fab Lab managers, technicians, teachers (lead org.)
- . Surrounding neighborhoods
- . Business, innovation, and education communities
- . Community development organizations
- . Economic development organizations

## *Investment models from outside the community ...*

### . **Bridgeway Capital | Craft Business Accelerator**

“We finance craft businesses, maker enterprises, design/build shops, and entrepreneurial artists that are creating jobs, reactivating industrial spaces, and revitalizing business corridors.”

### . **Urban Manufacturing Alliance | Patient Capital**

“A cohort of innovative capital access providers to strengthen their programs and broaden their expertise on mission-driven capital. to build on existing programs and create new pathways to capital access by uniting a range of capital providers — such as CDFIs, public agencies, financial institutions, educational institutions, impact investors, and place-based philanthropies — that are working to address the capital needs of small-scale manufacturers, with a racial equity lens.”

## *Investment models from outside the community ...*

### . NYCEDC & Council of Fashion Designers of America | The Local Production Fund

“The New York City Economic Development Corporation and the CFDA have earmarked \$14 million for a Local Production Fund and workforce development programming. The LPF aims to encourage U.S. designers to ramp up New York City production by teaming them with New York City-based factories. The program is open to all manufacturers in all five boroughs and all U.S. designers.”

### . Design House Chicago | Design for Local

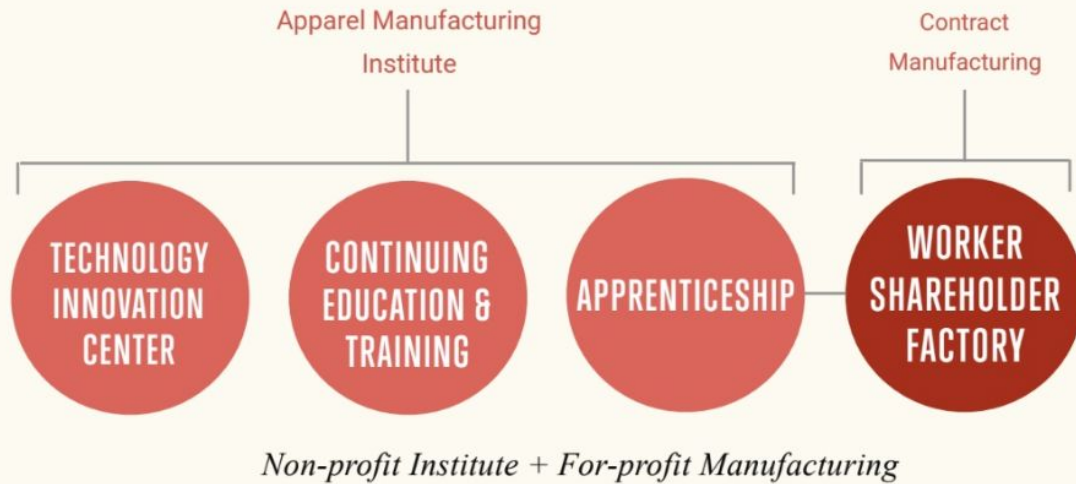
“We educate designers, manufacturers, and the next generation to work together earlier into the design process in order to create products that make sense to manufacture locally. We do this through our Design Jams, Design for Local Process and Design & Manufacturing Residency programs.”

## “INDUSTRIAL SEWING AND INNOVATION CENTER (ISAIC)

AN INDUSTRY SHIFTING  
PARADIGM ANCHORED IN  
HUMAN-CENTRIC  
MANUFACTURING”

- EMPOWER BY INCLUSIVITY
- STRENGTHEN WITH DIVERSITY
- FUEL WITH TECHNOLOGY
- ADVANCE WITH INDUSTRY
- FORTIFY WITH SUSTAINABILITY
- ACTIVATE WITH COMMUNITY

# Centers for New Industry ...

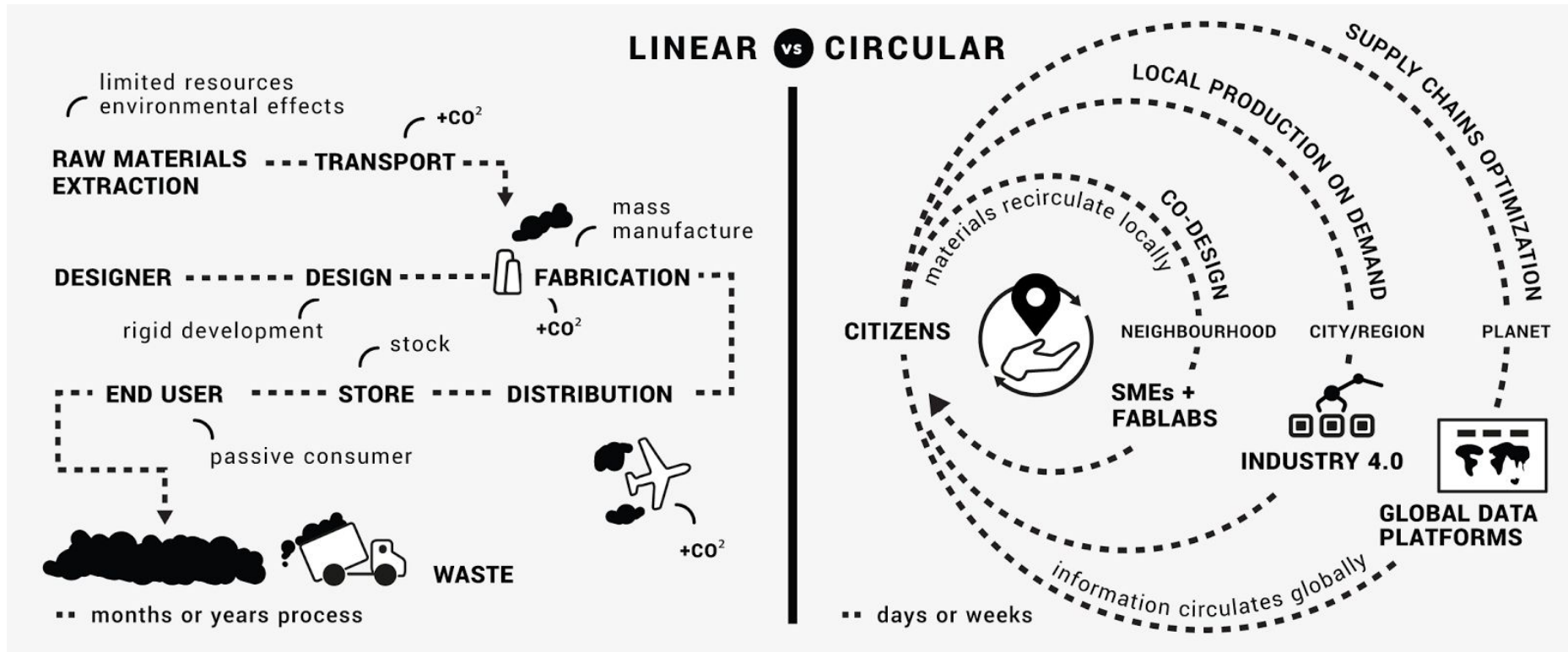


“ISAIC's mission is to create a sustainable community empowered ecosystem for apparel manufacturing with an innovative approach to facility design, application of technology and advanced career path development.”

## ***Partners / Alliances***

- . City of Detroit
- . Design Core Detroit
- . The Makers Coalition
- . Henry Ford College
- . Focus Hope
- . United Way
- . Detroit Economic Growth Corporation
- . Urban Manufacturing Alliance
- . The Empowerment Plan
- . College for Creative Studies
- . Goodwill Industries Greater Detroit
- . Carhartt

# Fab City ...



***“Cities hold the potential for the reinvention of the current linear economy paradigm to a Circular Economy, and the Fab City Prototypes project aims to accelerate this paradigm change, allowing consumers to become actors of the design, prototyping and production processes at the local scale, while sharing knowledge globally.”***

- Fab City Prototypes  
Designing and making for the real world

## OUR APPROACH

We apply our vision and values in a full stack model. From the local to the global, we work across multiple layers of practice and deployment, scaling the FabLab approach to a city and systems level.

## FULL STACK

The Fab City Global Initiative is envisioning and constructing possible urban futures by working at multiple and interconnected scales.

### Cities Network

Shared metrics to evaluate progress towards self-sufficiency in cities. Policy-making, regulation, and planning for regenerative urbanization.

### Platform Ecosystem for local needs

Project repositories for urban transformation. Distributed and decentralized repositories and value exchange mechanisms for global collaboration. Fab Chain, the blockchain project to enable distributed design and manufacturing.

### Shared Strategies Adapted to local needs

Global programs for urban transformation related to local production and processing of food, energy, water, information, or other production systems. Implementation and deployment strategies by the Fab City Collective. Fab City Prototypes.

### Distributed Incubation for urban innovation

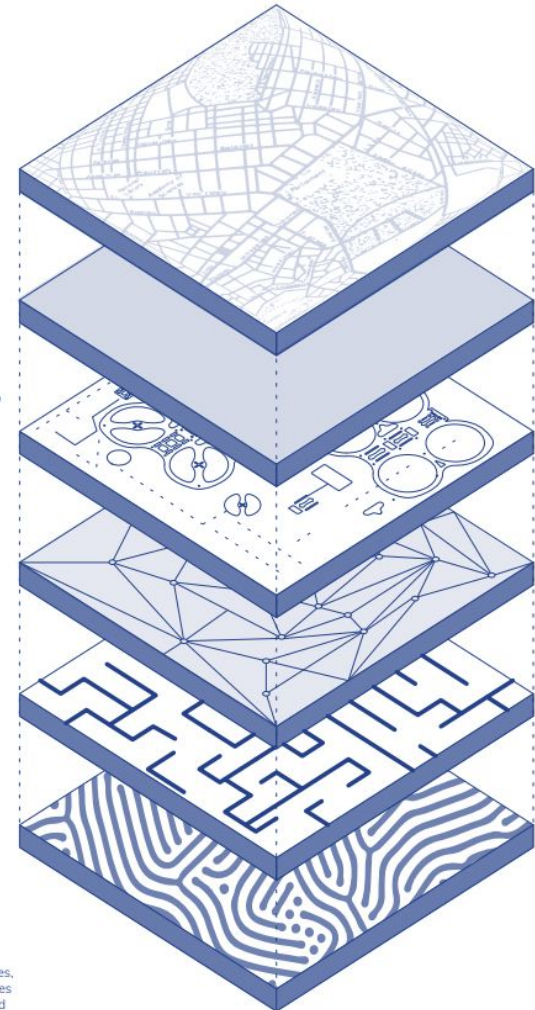
Engage the power of a distributed network of knowledge to envision, design and create open source technology for urban regeneration. "Grow with Fab" program as a distributed accelerator within the Fab Lab network.

### New forms of learning

New skills to learn how to learn, learning by doing principles, lifelong learning basis. The Academy of Almost Anything (Fab Academy, Bio Academy, Fabricademy), STEAM education and professional training.

### Distributed infrastructure for innovation in digital fabrication

People, communities, spaces (Fab Labs, Makerspaces, Hackerspaces), machines, tools. Thousands of spaces and communities already in place in every major and middle city in the world.



***“The Fab City model has the potential to foster economic prosperity by creating new types of jobs and professions*** related to the knowledge economy and the development and implementation of new approaches and technological solutions. This includes advanced manufacturing, distributed energy production, new cryptocurrencies for value exchange, and food production and circular economy. Moreover, ***the approach aims to foster new collaborations between the government and citizens as well as a renewed education system*** based on learning-by-doing, finding solutions for local needs through digital fabrication technologies, and sharing them with others through the global network.”

- Fab City Prototypes  
Designing and making for the real world

## *Common factors ...*

1. ***Strong lead organization***, responsible for ...
  - . engaging and growing the community
  - . design, develop, and maintaining community programs
  - . generating ongoing insights to barriers and needs
  - . building relationships with supporters
  - . helping understand leverage points
  - . maintaining the vision
  - . developing resource investment recommendations
  
2. ***Consortium of stakeholders***, responsible for ...
  - . participating in achieving and shaping the vision
  - . contributing and sharing resources\*

\* time, money, expertise, risk, space, etc.

# *Building an Artisanal Economy in Philadelphia...*

*Common goals ... And why do this in Philly ...*

1. ***Champion*** those that have been doing this.
2. ***Support*** those who are succeeding and struggling.
3. ***Build new opportunities*** to adopt new models and become part of new community and economic development.



# ***Growing Philadelphia's Artisanal Economy***

***CraftNOW-PIDC Roundtable  
November 7, 2019***