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## Urban Manufacturing Alliance

# 2nd National Convening Summary Report

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### Overview

The Urban Manufacturing Alliance (UMA) 2nd National Convening held in Oakland, California on October 2 – 4 brought together more than 70 manufacturing and economic development professionals representing 40 organizations from 25 cities. The date was chosen to coincide with this year's National Manufacturing Day, October 4, and the diverse group of attendees included representatives of city governments, public agencies, economic development agencies, nonprofits, academia, policy institutions, manufacturers and makers.

The convening was hosted by SFMade, in partnership with the City of Oakland, and facilitated by Collective Invention. The Convening and the ongoing work of the UMA is sponsored by Ewing Marion Kauffman Foundation, Citi Community Development and the Surdna Foundation.

While last year's inaugural convening was focused on launching the UMA and forming the connections between members of the urban manufacturing community, this year's convening expanded the view to the greater system, as represented by the convening theme: "Priming the Manufacturing Ecosystem." The theme focused on the confluence of trends—including the spread of new technologies, increasing importation costs, shifting consumer preferences and more supportive public policies—that have set the stage for the revitalization of urban manufacturing.

As the urban manufacturing movement begins to gain momentum, there is a need to build the infrastructure, not only to sustain this new industrial ecosystem but also to catalyze its growth. The two-day convening focused on the policies, practices, incentives, and partnerships that will enable the urban manufacturing ecosystem to thrive.

### About the Urban Manufacturing Alliance

The Urban Manufacturing Alliance (UMA) is a national collaborative of non-profit, for-profit and governmental stakeholders working together to grow urban manufacturing, create living wage jobs and catalyze sustainable local economies.

The UMA is generously supported by Ewing Marion Kauffman Foundation, Citi Community Development and the Surdna Foundation.



The convening sessions were organized around the following themes:

- **Exploring connections and tensions between the “innovation” economy and traditional manufacturing:** How can we bridge the gap between old and new manufacturing, and ensure that urban manufacturing is a tool for equity?
- **Old and new:** The necessity of both repurposing the past as part of the platform for the future—such as industrial land reuse or traditional apprenticeship models—and leveraging new models—such as crowd-sourced platforms and new cloud-based communication approaches—to create our future platform.
- **Innovations in land use planning:** What are the models and best practices in creating and financing stable, affordable industrial space in cities? What are the challenges? Are there opportunities for UMA cities to work together on this issue?
- **Network effects:** How can UMA leverage technology to create platforms for shared action? Can we develop a web-based sourcing platform to strengthen supply chains between cities to promote local production, and how can we also use better tools to share knowledge and foster collaboration between UMA members?
- **Workforce development:** How can urban manufacturing initiatives create better, more equitable job opportunities for urban residents? How can we connect with workforce development partners? Is there an opportunity to create apprenticeship programs for urban manufacturing?

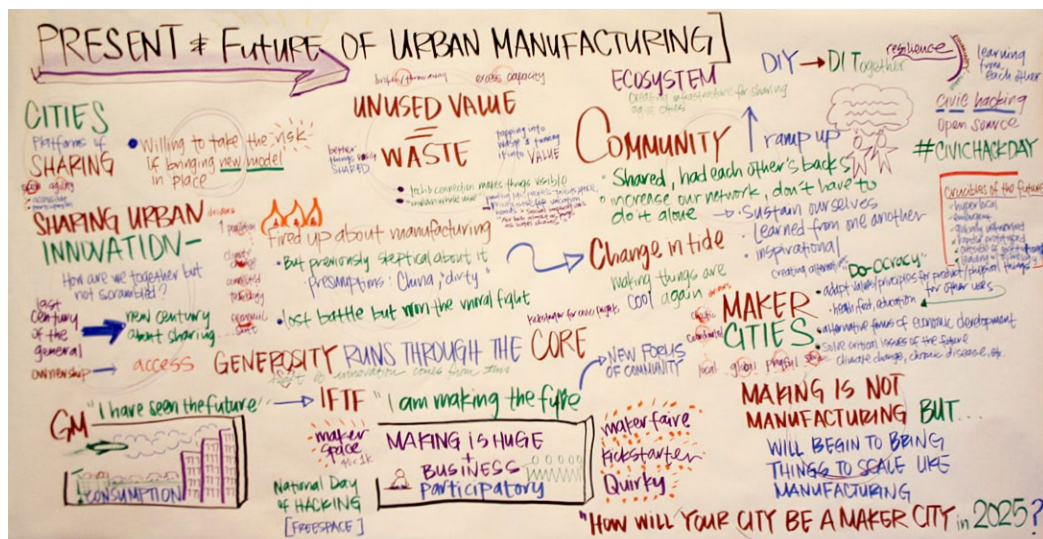
- **Future possibilities:** How can UMA prepare for shifting trends that will shape our cities and businesses? What are the challenges and opportunities we foresee?

During the coming year, the UMA will take the rich learning, insights and discussions from the convening to continue its efforts in sharing best practices through toolkits and webinars, to strengthen connection amongst the members through regional and affinity groups, and to create a strategic vision and plan for the UMA as an organization.

The UMA distinguishes itself from other national economic development groups not only by its focus on urban manufacturing, but by its commitment to collaboration and creating an urban manufacturing “commons” through the participation and direct action of its members. It is UMA members who not only guide the still evolving organization, but who are the implementers of its programs and the expert practitioners who share their experience to increase our total effectiveness and impact.

## Key Takeaways

This section summarizes the key points for each of the convening sessions. For presentation videos and slides see: <http://urbanmfg.org/annual-convening/2ndnationalconvening>



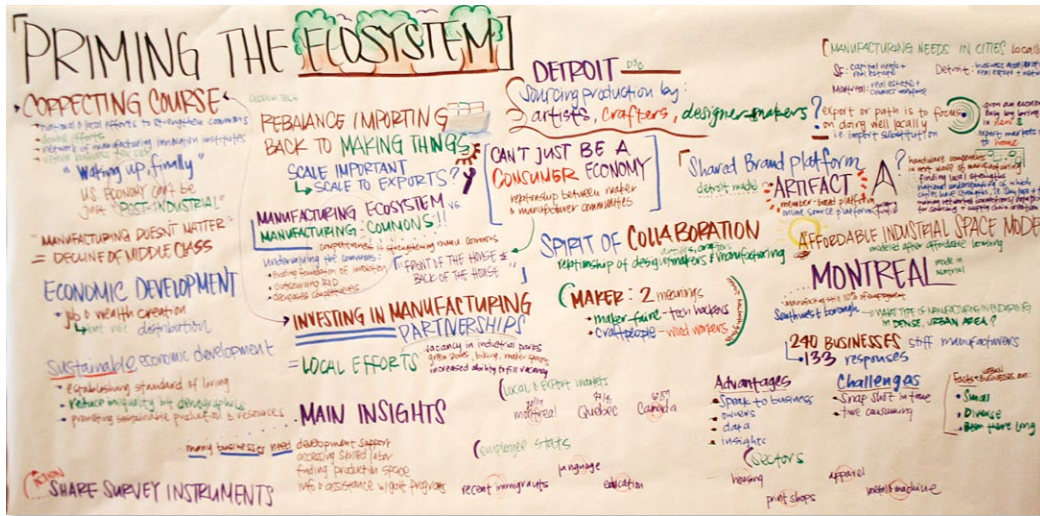
## The Present and Future of Urban Manufacturing: Making and Sharing

Presentations from Institute for the Future's Jason Tester, and Mesh Labs' Lisa Gansky described the growth and potential evolution of the maker movement, and of the sharing economy. A key theme that emerged was the potential for the Maker movement to act as a force for civic change, and the radical restructuring of consumption offered by the sharing, or post-ownership, economy.

In later discussions participants referred often to the 'old' manufacturing (large-scale, legacy industries and organizations with high fixed costs) and 'new' manufacturing (typically small-scale, Maker/Artisan led, agile and highly urban). There was recognition of the need to bridge these two communities. For example, to both infuse the 'old' manufacturing with the economies of agility that characterize the Maker movement and the Sharing Economy, and at the same time 'future-proof' legacy industries by doing so.

The lessons learned from the 'old' manufacturing are also critical to the next stage of many Maker generated businesses: Are they able to grow and thrive, to generate jobs, and to substantively contribute to their local manufacturing ecosystem? Are there new ways to grow, which learn from the past without replicating it? What are we learning from the Sharing economy that will influence the possibilities for growth for both 'old' and 'new' manufacturing? The Sharing Economy promises that the constraints of recession do not necessarily lead to loss, either of access to goods and experiences, or of quality of life. As new generations grow up with a shared ownership mindset it will be interesting to see how this impacts our assumptions about economic growth and a reliance on consumerism.

"Making Stuff in Maker Cities—The Future of Urban Innovation"  
- Jason Tester  
Research Director, Human-Future Interaction, Institute for the Future  
- Lisa Gansky  
Chief Instigator, Mesh Labs, Author of *The Mesh: Why the Future of Business Is Sharing*



## Priming the Ecosystem

In this session the presenters explored the manufacturing ecosystem and the critical infrastructure that sustains it, from national and regional contexts to city-wide and neighborhood based.

### The Ecosystem and the Commons

The urban manufacturing ecosystem is the connected web of people, spaces, ideas and policies that create—or inhibit—the opportunities to make and manufacture in cities. Deep support for this ecosystem is provided by the notion of a manufacturing commons that includes both the skill and expertise of people engaged in a diverse array of activities necessary for production, from machinists and mechanics to designers and financiers, to advertisers and academics, as well as the physical assets of buildings, internet access, rail lines and truck routes. To keep the local ecosystem healthy, whether in neighborhoods, cities, regions or nations, these elements of knowledge, skill and connection need to be supported and refreshed.

### The Importance of Networks<sup>1</sup>

A critical reminder at this convening was that the majority of businesses, old and new, in the ecosystems of cities are micro manufacturers. Traditionally such businesses are constrained by their size in terms of budget, hiring capacity and visibility. Technology has enabled the potential of small enterprises to connect to national and international markets. However, this alone does not provide the technical support or differentiation

that small businesses need to thrive. Local ecosystem support organizations can provide learning communities, partnering opportunities and help companies to differentiate themselves through powerful local branding.

### Reciprocity

The relationship between makers and manufacturers and the local ecosystem can be beneficial to driving growth in both sectors. The final words of Bethany Betzler's presentation articulate the reciprocity effect of the individual and the ecosystem: "The Maker Inspires the City, the City Inspires the Maker." This reciprocity is a powerful tool not only in economic development, but also in civic engagement.

In order to facilitate relevant networks, and create pathways for reciprocity to take effect, ecosystem support organizations must stay close to their constituents. Listening deeply (and regularly) to constituents needs, providing platforms for services and connections, and (re)creating the notion of a manufacturing commons that supports the interplay of creation and enterprise, rather than a singular focus on consumption can help the ecosystem stay vibrant.

### Action Steps

- Share survey instruments across the UMA network

"Economic Development and the Manufacturing Ecosystem"

- Nancey Green Leigh, Professor of City and Regional Planning, Georgia Institute of Technology

"Manufacturing and Creative Industries in Detroit"

- Bethany Betzler, Associate Director, Detroit Creative Corridor Center (D3C)

"Made in Montreal—Boots on the Ground Research of the Urban Manufacturing Community"

- Steve Charters, Co-founder and Research Coordinator  
- Jill Merriman, Co-founder and Program Coordinator

<sup>1</sup> The UMA is also emerging as a hyper-local, increasingly networked organization. Members are deeply immersed in their local contexts—and the number of "Made In" organizations participating in the network attests to the importance of local manufacturing ecosystems to the health and sustainability of cities. The value of a locally focused but nationally networked organization is that it enables members to communicate local actions and rapidly learn from one another. It also enables members to understand the role of context—or the ecosystem—at different levels of the system.

## Land Use: Repurposing the Past, Creating Places for Manufacturing and Making

The presentations and discussions in the land use panel covered a range of approaches to industrial reuse, from large-scale planning for the Schuylkill River in Philadelphia and remediation of brownfield sites around the country, to the application of commercial corridor reuse strategies, to neighborhood blocks in Indianapolis. Key strategies in each case included:

## Creating the vision of a new type of industrial

**area:** These visions typically incorporate mixed uses and accessibility including attractive civic spaces, high levels of walkability, environmental sensitivity, and urban design that supports mixed-use spaces.

Moderator

Joan Byron, Director of  
Policy, Pratt Center for  
Community Development

## “The Lower Schuylkill Masterplan”

- Michael Cooper,  
Vice President,  
Market Development,  
Philadelphia Industrial  
Development Corporation

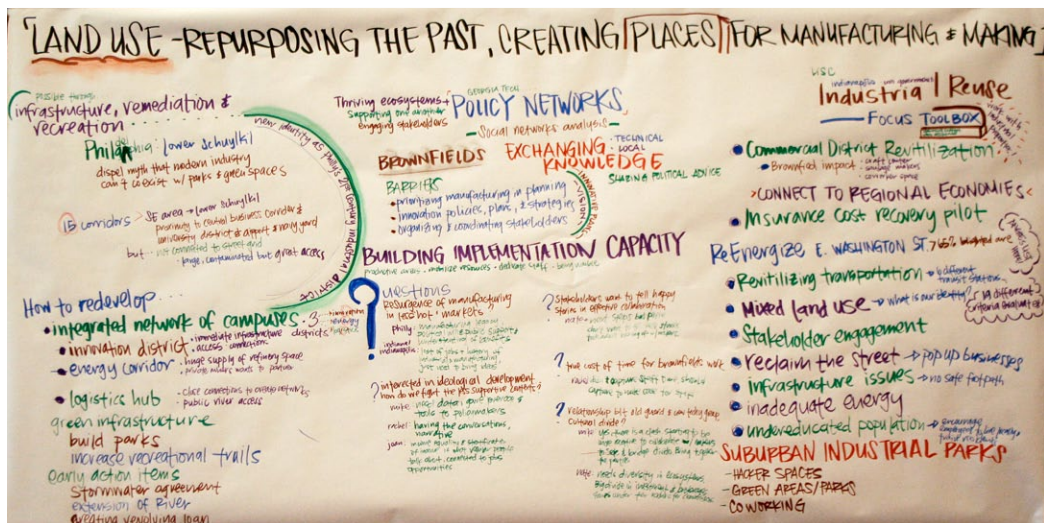
“Policy Networks and  
Overcoming Brownfield  
Barriers to Urban  
Manufacturing”

- Nathaniel Hoelzel,  
School of City and  
Regional Planning  
Georgia Institute of  
Technology

## “Indianapolis and Industrial Reuse”

- Rachel McIntosh,  
Senior Program Officer,  
LISC Indianapolis

- Joe Bowling,  
Director,  
Englewood Community  
Development Corporation



### The use of public-private partnerships:

In a climate of uncertain public finances and diminishing public confidence in civic projects, public-private partnerships enable a combination of dynamic capital investment, and the protections and incentives necessary to support mixed-use initiatives, and environmental health.

## Implementation of deep stakeholder

**engagement:** Whether involved in the revitalization of a neighborhood, or the remediation of a brownfield site all the presenters emphasized the importance of deeply involving stakeholders from the earliest planning stages of change. Beyond the truism that this is important, presenters recognized the nuances that influence

whose input is regarded as important, sought ways to support the valuing of local knowledge, and argued for the importance of informing policy networks with stakeholder input.

## Action Steps

- Create a central online repository for reuse or planning activities nationally (which would include PIDC's land studies, along with similar ones from Detroit and Chicago, along with case studies about brownfield redevelopment, etc.).
- Hold webinars and first-person panels that bring together Planning, Private Development, and Economic Development to discuss implementing plans, best practices, etc.



## Design/Production Districts

Adam Friedman from the Pratt Center presented a proposal to launch a new UMA initiative to support the creation of Design/Production (D/P) Districts to help cities capitalize on the wealth of design and production talent concentrated in urban areas. D/P Districts have layers of infrastructure that weave together the disparate elements that must be combined to stimulate innovation and move an idea all the way from design through production to the end consumer. For example, D/P Districts design would contain a diversity of spaces for both the high tech and creative sectors that stimulate product development and commercialization, as well as spaces for larger scale production to capture the full job creation potential. They would have a spectrum of workforce development resources that might extend from high schools to graduate level design and engineering institutions.

Adam proposed the creation of a community of practice within the UMA in which several cities that were in the process of implementing similar proposals share their research and experiences, that they use a team of UMA experts to address research needs and find best practices and that they then share the results and work products with all UMA members. This would include a joint fundraising effort such that the UMA member experts would be compensated for their professional services.

In conversation with Adam around this idea Sal DiStefano from Boston shared the successes that Boston has had with its innovation districts—and the challenges of the unintended consequences

of that success. As districts become thriving hubs of innovation and new business they also become desirable places for other service businesses to locate, as well as some generally high-end residential development. Thus the diversity of uses that initially makes a district attractive and provides the density of jobs that benefit city residents is at risk from gentrification.

Cities need to plan for maintaining a diversity of spaces and uses. Helping cities to create land use, financing and other tools to maintain economic diversity is a key part of the initiative. Through 21st century zoning, multi-level rather than market rate rents, and a division of land use into innovation core and production ring (with concomitant zoning and equity-based practices) can balance the results of short-term “success” with the long-term viability of a heterogeneous manufacturing ecosystem.

### Action Steps

- Select UMA expert team.
- Develop criteria for selecting the cities for P/D support including a short application from interested cities (In the UMA follow-up survey 13 members indicated their interest in participating in this initiative.)
- Develop scope, methodology and budget.
- Seek funding.

**Moderator**  
Adam Friedman,  
Director, Pratt Center  
for Community  
Development

**Discussant**  
Sal Di Stefano,  
Boston Redevelopment  
Authority

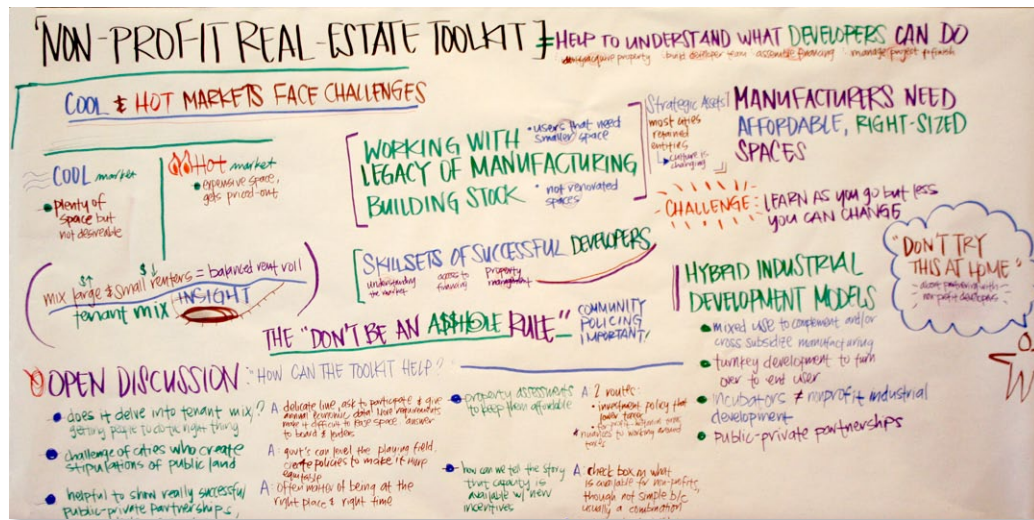
## Non-Profit Real Estate Toolkit

This toolkit outlines a non-profit-based approach to real estate development. The toolkit provides an overview of a non-profit approach, including the economics, development, and management of these projects. It is intended to help various actors in the manufacturing ecosystem understand their roles with regard to the challenges of securing stable, affordable high quality space. The toolkit provides examples of the challenges in both hot and cool markets.

### Action Steps

- This toolkit will be part of the resource base for the Design/Production Innovation Districts Initiative.
- The complete toolkit will be published by the end of year 2013.

"Introducing the Non-profit Real Estate Development Toolkit"  
- Joan Byron,  
Director of Policy,  
Pratt Center for  
Community Development



## Local Sourcing

The local sourcing discussion brought together a range of UMA members, representative of all the different constituents in the UMA and from a variety of regions. Key discussion topics included:

The need for newer and small manufacturing enterprises to become manufacturing and supply chain 'ready'. This includes education about the process and economics of manufacturing, and what is required to be ready to move from prototype to production run, and connections to the right suppliers and fabricators.

The need for a tool that will broker connections between designers, manufacturers and suppliers  
The need for a 'directory' of local skill sets and

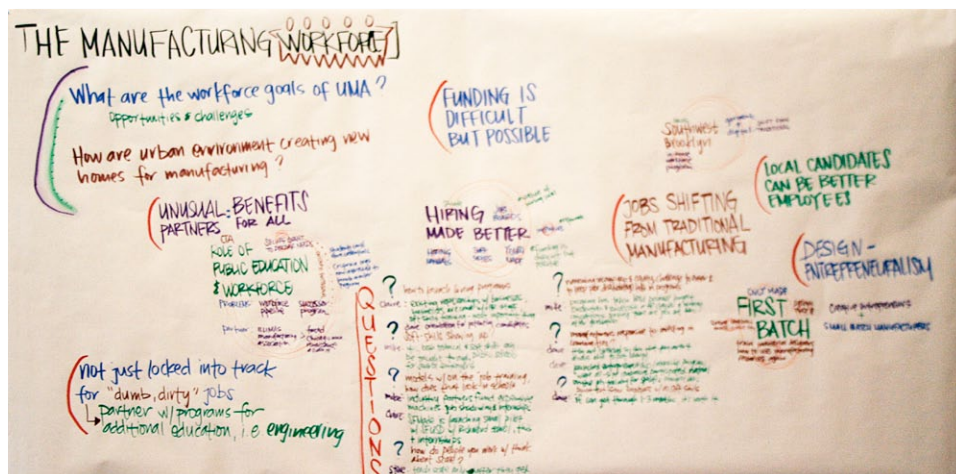
supply options throughout the UMA so that the UMA itself can help members optimize the supply chains of urban manufacturing, and cultivate regional reciprocity within the network.

### Action Steps

- Launch a Local Sourcing UMA initiative—in the follow-up survey 13 members signed up to join this initiative.
- Begin due diligence on a connections brokering tool—in the follow-up survey six members signed up to work on this element.

"Building a Powerful National, Decentralized Sourcing Network"

Host  
Janet Lees,  
Senior Director, SFMade



## Workforce Development

A significant focus in this session was the emphasis on youth workforce development. As the Maker movement is reshaping perceptions about manufacturing, opportunities are emerging for youth whether they are at-risk, from highly disadvantaged backgrounds, or college graduates. Again key elements of success for these programs are the use of partnerships and the formal and informal network effect. For example, SFMade hosts a job board where manufacturers and workers can post availability, or look for a match. It also offers paid apprenticeships with its member businesses.

A joint partnership with CNCY Made, the Industrial Design program at the University of Cincinnati and local philanthropy through the Haile Foundation and US Bank has resulted in an innovative post-graduate incubator program. This program provides technical business support and connects graduates with local manufacturers who can fabricate their products.

The Chicago Manufacturing Renaissance program, a partnership between businesses, educational organizations, labor groups and government, is inspiring a new program in California. This will connect one of the most disadvantaged high schools in the US with the local community college, and local business in a pilot program facilitated by the school and the California Teachers Association.

The value of being located in the community was also a key factor for the work of the South Brooklyn development corporation. Long-standing relationships, access and familiarity means that this group has become an integral part of the local ecosystem, and can facilitate its formal workforce development work through its informal network of relationships.

### Action Steps

- Share SFMade's job board with other interested parties
- Call for interest in a UMA-wide paid apprenticeship program—in the follow-up survey 11 members signed up to join this initiative
- Call for interest in a UMA-wide internship program (focused at this point on building the work experience for graduate students thinking about a career with some kind of manufacturing ecosystem support organization)—in the follow-up survey 10 members signed up to join this initiative

**Moderator**  
Matt Tuerk,  
Director of Research and  
Innovation, Lehigh Valley  
Economic Development  
Corporation

*An overview of SFMade's  
"Hiring Made Better"  
Program*

- Claire Michaels,  
Manufacturing Workforce  
and Hiring Manager,  
SFMade

*"The Workforce  
Development Experience  
in Southwest Brooklyn"*  
- Dave Meade,  
Executive Director,  
Southwest Brooklyn  
Industrial Development  
Corporation

*"A Match Made in Heaven?  
Manufacturing, Education,  
and Workforce—Reviving  
the Urban Economy"*  
- Mike Egan,  
Assistant Executive  
Director, California  
Teachers' Association

*"First Batch: A Talent and  
Economic Collaboration  
Between Cincinnati's  
Maker Community and the  
University of Cincinnati"*  
- Steve Doehler,  
University of Cincinnati  
- Noel Gauthier,  
Co-owner:  
The Launch Werks,  
Co-founder: CNCY Made,  
Co-founder: First Batch

## Future of Urban Manufacturing

The group was taken on a brief, visioning journey into one possible future—a world in which micro manufacturing is a way of life, and a wide variety of things from cars to prosthetics are made locally and ‘just in time’; in which the Maker movement and expeditionary learning have reshaped education; and in which many of the environmental problems of urban manufacturing have been resolved, but manufacturers now compete for land with the urban farming movement.

Given this context, the group was asked to identify the most important question regarding the future of urban manufacturing, and what role the UMA would play given this question.

The consensus that emerged for the group was that the UMA should serve as the repository of best practices and information and that UMA members are the creators of that information. A not original analogy is that cities are like laboratories in which UMA members test new strategies for economic development, for training, for community engagement and for a wide variety of policy objectives to promote job creation and equitable growth. The challenge of sharing the results to avoid duplication of effort and to maximize benefit to our cities is often as daunting as the underlying policy issue.

## Next Steps

As with the first convening, this year’s convening confirmed the need to share best practices with others in the field. The UMA will continue efforts in this area by:

- Deepening the connection between members through the creation of regional and affinity groups that will alter the way the UMA and its members will interact with one another. This key suggestion that arose from this convening will enable members to locate others with shared interests and practice areas in order to create direct relationships and working groups, with the added benefit of being supported by UMA organizational structures;
- Continuing initiatives that began earlier this year including the development of toolkits and regional initiatives;
- Sharing information through online engagement including social media, online publications and webinars.

The group agreed that, moving forward, the UMA should serve as a clearinghouse of tools and a knowledge base for people engaged in promoting urban manufacturing. Critical to the success of this function was the active engagement of the UMA members to share their experiences, to be open and respond to inquiries and to seek opportunities to promote a common urban manufacturing agenda.

### Action Steps

- The work from this session will be carried forward to the Advisory Board strategic session in Atlanta in December.
- The UMA will be surveying interest in order to recruit new members to its Advisory Board at the start of 2014.
- In 2014, the UMA will be embarking on organizational development focused on achieving the goals of having an incorporated organization with a mission, vision, funding, a Board, and staff.

The path forward and next steps articulated in the “Future of Urban Manufacturing” sessions will be further refined during the UMA Advisory Board members will meet for a strategic session in December. This meeting will kick off the start of strategic visioning for the organization in order to gain clarity of the type of organization the UMA will become and the role it will play in the field.

To stay up to date with these activities, visit the UMA website ([urbanmfg.org](http://urbanmfg.org)). To get involved with the UMA and its initiatives, please email us ([info@urbanmfg.org](mailto:info@urbanmfg.org)).

*Moderators*  
The Collective  
Invention Team

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## Organizations In Attendance

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Bohemian Blacksmith  
Boston Redevelopment  
Authority / Back Streets  
Program  
California Teachers  
Association  
Citi Community  
Development Foundation  
City of Fremont, CA  
City of Hayward  
City of Oakland Office of  
Economic and Workforce  
Development  
City of San Francisco  
City of San Leandro  
City of Seattle  
Department of Planning  
and Development  
City of Union City  
CNCY MADE  
Creative Space

Detroit Creative  
Corridor Center  
Detroit Economic Growth  
Corporation (DEGC)  
Detroit Future City  
Ewing Marion  
Kauffman Foundation  
EWIDCO  
Georgia Institute of Technology  
Greenpoint Manufacturing  
and Design Center (GMDC)  
Illinois Manufacturing  
Excellence Center (IMEC)  
Inner City Advisors  
Institute for the Future  
Juma Ventures  
Lehigh Valley Economic  
Development Corporation  
LISC  
Made in Montreal  
Oakland Local  
Oakland Sewn  
Otis College of Art and Design

Philadelphia Industrial  
Development Corporation  
Pratt Center for  
Community Development  
Project Equity  
San Jose Office of  
Economic Development  
SFMade  
Southwest Brooklyn  
Industrial Development  
Corporation  
Surdna Foundation  
The Mesh  
Tucson Made  
University of Cincinnati

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## Appendix

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In the futures work on Friday morning participants were given the prompts described in the report, and asked about the future of urban manufacturing, then the future of the UMA.

Between the two overall questions and a process of individual reflection, small group and large group voting, the following emerged as crowd-sourced guidelines for the UMA going forward:



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As discussed in the report, a key UMA benefit articulated by members is the ability of this relatively new community to share knowledge and best practices. In the responses above, the UMA as a knowledge and technical assistance broker, and as an advocate came out strongly. When asked about the future of manufacturing, one question that rose to the top asked about the ways in which the UMA would evolve this function to respond to changing times:

How will UMA evolve as a laboratory and repository of best practices and values?

This question acts as a bridge between the world the UMA will operate within, and what members need from the network. Other responses to the prompt, "What is the most important question we need to consider about the future of manufacturing?" are summarized below.

## What is the most important question we need to consider about the future of manufacturing?

The themes are organized in a roughly ranked order and give nuance and guidance for the evolution of the UMA, as well as indicating the other key concerns of the UMA community at this point in time.

### Network Action

Suggestions here involved the desire to move from ideas to action. Building upon the role of the UMA as a repository of knowledge and best practices, participants were keen to implement ideas—either those inspired by others' experiences, or to take shared action in the spirit of experimentation and learning together. The value of the network is that learning from experimentation can be shared quickly, and collective experimentation can help to manage risk. One question asked whether the UMA could help cities to stop competing with one another. In order to foster a commons of shared knowledge and the willingness to experiment a network norm around competition may need to be developed.

For the UMA to evolve as a repository of knowledge and best practices it will be important to keep the network dynamic and to provide opportunities for shared action, such as UMA initiatives.

### Influence and Advocacy

There were three main types of questions related to Influence and Advocacy. Firstly, a hope that the UMA can develop good strategies for engaging decision-makers in order to influence policy at local, federal and national levels. This includes ways to advocate for the application of current incentives to micro-manufacturing.

Secondly, a wish that the UMA will engage and enroll communities, mainstream audiences, and the business community in the cause of urban manufacturing.

And thirdly, questions about how to influence both attitudes towards 'old' manufacturing, in order to help foster change; and attitudes towards 'making' in order to help the Maker movement thrive and grow.

Related to this there was one question specifically about power, and several about leadership. In terms of power the question asked was whether UMA could gain the legal authority to rezone

property. In terms of leadership several wondered about the emergence of key figures to catalyze or be somehow emblematic of the new manufacturing—who would the new titans of industry be? What would they be like? What about the new leaders emerging from the Maker economy?

### Scale

Questions of scale came up in two inter-related ways:

- How is the urban manufacturing movement going to scale—will it incorporate the Maker movement? Will it integrate with traditional manufacturing? What 'old' skills could, or should inform new technology development and Making? Will urban manufacturing inevitably be about small-scale production, and personally made?
- How is the UMA going to scale—does it need to have regional councils or alliances? Will the UMA be limited to manufacturers, or will it help out other allied sectors? How do we build out supply chains within the UMA membership? How do we create systems to help one another solve problems? Will the UMA become trans-national—what percentage of global cities will have local leaders?

### Maker Movement

The Maker movement itself also generated a number of questions. A lot of discussion focused on the possibility of—and the UMA's role in—bringing together the Maker movement and mainstream manufacturing. Another group of questioners wondered whether the current passion in the Maker movement could be extended into the broader urban manufacturing movement. Because participants had been asked to think into the future people also wondered whether an identifiable Maker movement would still exist, or whether it would have been absorbed into manufacturing generally.

### Equity

There was a strong feeling at the convening that we are poised at the threshold of a manufacturing resurgence and economic revitalization. In the questions raised and in the discussions there was a desire for the UMA to work on ensuring that this resurgence resulted in a more just and equitably prosperous world. People were concerned that job creation in the US included opportunities for lower and semi-skilled workers, and that the UMA take equity and social justice into account in its advocacy work.

### **Diversity**

Diversity came up as a desire to include all the different actors in the system in the work of the UMA. This linked to the vision of the UMA as an organization that can bring 'old' and 'new' manufacturing together, and can bring 'high tech' and 'low tech' together. There were also questions about the role of the private sector in urban manufacturing. Questions of diversity also link to the questions of equity.

### **Workforce**

Also related to diversity and equity were questions about workforce. Participants wondered about the capacity for urban manufacturing generally to create jobs, and as mentioned above, what kinds of jobs would be created. Questions were also asked about the capacity to support workforce within the alliance (One member volunteered workforce as a new initiative for the UMA in the post-convening survey).

### **Sustainability**

Questions were also raised about the ability of UMA to act as an advocate for environmental sustainability. Can UMA be instrumental in supporting manufacturers to move towards zero waste, for example? Will the UMA take an advocacy role in sustaining the resources needed for manufacturing? These link to the questions about influence and advocacy above, and also to the values of the UMA. If the UMA decides to take a stand on environmental sustainability it could potentially alienate some of legacy or 'old' industry partners. However, it could also become a supportive network that encourages 'old' manufacturers to migrate practices, by influencing policy and incentives and through public advocacy work.

Questions were also asked about how the urban manufacturing will intersect with sustainability and social equity in the future. As questions around environmental sustainability become more critical over the coming decades there may be a tendency to postpone questions of social equity. This will be a decision point for any organization doing advocacy work, and an opportunity to demonstrate leadership around the mutual possibilities of these two areas.

The other area of questioning was the UMA's own sustainability. Some asked whether the UMA would need to exist in the future. Will it be a transition network? Once the ideas of new, urban, micro-manufacturing, for example, are widespread will it still have a mission? This also links to questions about the UMA's connection to mainstream manufacturing organizations. Assuming the UMA is in existence for a while longer, does it need to incorporate? And what kind of entity should it be?

### **Education**

Participants also addressed the partnerships the UMA could have with, for example, City Colleges—connecting to the idea of internships and workforce development. The overall role of the UMA as a repository for knowledge and best practices, and a laboratory for shared experimentation also suggests that the UMA itself will become an agent of education.

Clearly there are necessary or mutually supportive relationships between some of these themes. A strong network will identify and leverage these connections to optimize action and maximize impact. In the planning work that will take place in late 2013 and early 2014 the advisory board will take these themes into account in thinking about the role and structure of the UMA going forward, in the sequencing of new initiatives, and in the work of regional groups.