



FAB CITY SUMMIT

2018 WHITE
PAPER

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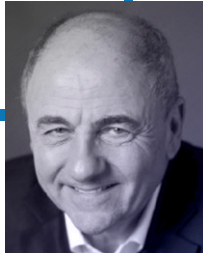
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Anne Hidalgo

MAYOR OF PARIS

"Together, the objective is to share experiences and good practices from concrete projects in order to voice a collective commitment to the Fab City movement."



Jean-Louis Missika

DEPUTY MAYOR OF PARIS IN CHARGE OF CITY PLANNING, GREATER PARIS PROJECTS, ECONOMIC DEVELOPMENT AND DRAWING POWER

By joining the international Fab City network in 2016 and hosting the Fab City Summit at City Hall in July 2018, we wanted to put Paris on the world map of cities that locally manufacture in a responsible and sensible fashion.

The Fab City Summit brought together approximately one hundred makers, artisans, architects, designers, urban farmers, engineers, large companies and elected officials from around the globe so that they could convey their wish to fundamentally change their way of making the city.

By signing the Fab City Manifesto, we collectively expressed our desire to locally produce more sustainable goods, thereby contributing to the emergence of a decarbonized economy.

New cities, sympathetic to this cause, also joined our ranks on the occasion of this large gathering. We are delighted and wish a long life to the expanding Fab City network, which contributes in placing energy transition issues at the heart of the member cities' preoccupations and action.



**Association
Fab City Grand Paris**

Co-ORGANIZERS OF THE EVENT

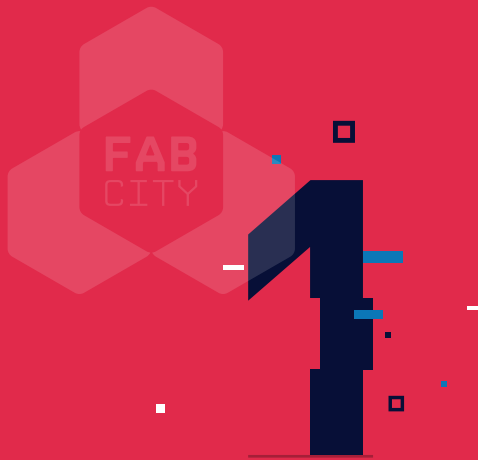
We are living in a period where economic, environmental and social balances are rapidly being transformed, which challenges the status quo of a 150-year-old industrial society. Builders, deciders, designers, engineers, we all need to rethink our professions and tools in order to participate in one of the most important turning points in humanity's history.

If, in 2050, metropolises account for 70% of the world's populations, city stakeholders must immediately start to mobilize this powerful metamorphosis.

Fab City Grand Paris actively participates in this challenge and its opportunities, by becoming a global auditor and a local experimenter. Our objective is to find balances in the world's technical acceleration, by producing intelligence and meaning through our institutions and shared knowledge.

The Fab City Summit was an opportunity to visualize these singular, transformative intelligences, which promote collaborative and open processes in order to help communities, companies and citizens towards this future and benevolent city.

This event, which took place on July 11, 2018 at the Hôtel de Ville, was the opportunity for Fab City stakeholders to exchange on many different topics. The purpose of this event was to give each participant an opportunity to share their thoughts.



THE FAB CITY CREATING THE FUTURE

The “day of no return,” i.e. the date on which humanity has exhausted all of its resources, becomes closer each year. This fact requires us to radically change our consumption and production habits. The Fab City, with its local, environmental and resilient approach, provides concrete responses to the urgent transformations that our lifestyles must undergo.

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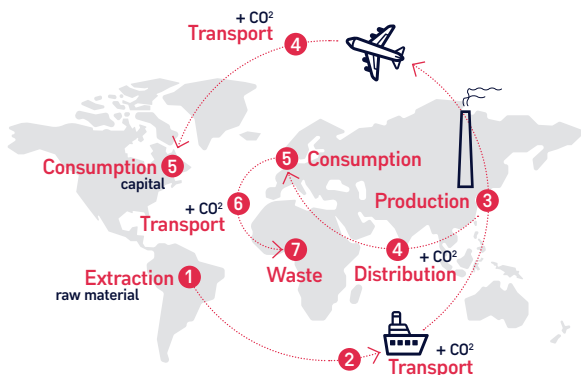
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- The Fab City is an aspiration that responds to many of the challenges that the world's major cities are currently facing. Focused on environmental issues, this approach is built around the principle of local, circular, participatory and responsible production by using state-of-the-art technologies and citizen relationships.

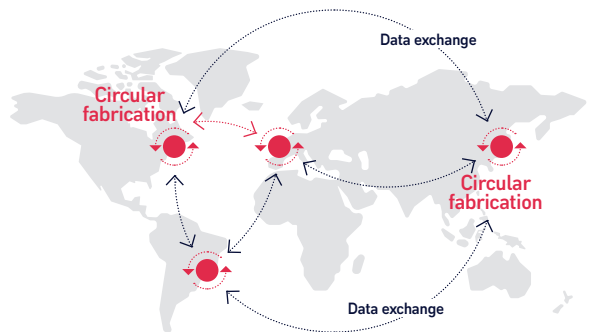
The role of cities in the industrial cycle is evolving. If the distance between production and consumption sites have grown over the course of globalization, digital technologies make it possible to once again imagine urban centers as regions with a strong potential for production. This requires us to question the metabolism of urban areas by incorporating changes in supply, logistics, learning, governance and resource reutilization chains.

Consequently, around the world, many innovative initiatives are emerging, supported by a wide variety of stakeholders. They create, experiment, share new methods and technologies in order to initiate urban transformations.

This evolution in international organization is illustrated by the transition from one system “Products In, Trash Out” (PITO) to a “Data In, Data Out” (DIDO) system. Fab Cities are concentrating a portion of production by investing in the reutilization of resources and materials. The exchanges between cities mainly involve data, information and knowledge.



from **PITO**
PRODUCT IN → TRASH OUT



to **DIDO**
DATA IN → DATA OUT



The **Fab City** network currently includes nearly thirty areas (cities, regions, small countries) committed to promoting new uses. The **Fab Foundation** and the **Fab City Global Initiative** manage this ecosystem that includes communities of innovators and local public institutions from around the world.



At the Paris level, **Fab City Grand Paris** includes all of the stakeholders committed to this productive city movement (third places, fab labs, designers, architects, etc.) and represents a referential partner for large companies and public authorities.



17 SIGNATORIES

Institutions: Paris, Toulouse, Barcelona, Belo Horizonte, Brest, Groningen, Helsinki,
Private partners: Caisse des Dépôts, Quartus, Leroy Merlin, Ratp, Sogaris, Sony, SPIE Batignolles,
Collectives: Fab City Global Initiative (IAAC), Fab City Grand Paris, Fab Foundation (MIT)

Thanks to a shared desire by the city and local stakeholders, Paris joined the Fab City network in 2016 and was designated host city for the 3rd Fab City Summit (2018) after Amsterdam and Copenhagen.

This summit preceded the Fab14, which then took place in Toulouse from July 16 to 22nd.

This event represented a unique opportunity to make the Parisian strategy visible: "Making in the City, Making the City," which attempts to reimagine functions and uses in the city. This strategy was awarded by the European Commission, which designated Paris as the European Capital of Innovation in 2017.

This international summit took place over three different events:

The Lab / July 11th

The Conference / July 12-13

The Campus / July 13-22

The first day, organized at Paris City Hall, underlined a strong commitment from local, European and international public authorities in the promotion of a new urban model. The European Commissioner in charge of Research, Science and Innovation, Carlos Moedas, and the Mayor of Paris, Anne Hidalgo, welcomed nearly forty delegations from every continent, who came to share their Fab City project experiences.

The two-day conference was then held by the most well-renowned international urban experts within the Grande Halle de la Villette and the Cité des Sciences et de l'Industrie.

The Campus, a genuine open-air exhibit, made it possible for the greater public to discover new production and repurposing tools, techniques and practices in ephemeral installations within the Parc de la Villette.

The City took advantage of this summit in order to invite European and international mayors (finalists from the iCapital competition) to get together and discuss themes inherent to the productive city. These individuals signed the Fab City Manifesto in which they promised to work towards an urban model that is locally productive and globally connected.

We, as signatories, commit ourselves to implement the ten following principles to enable the urban transition towards locally productive and globally connected cities. We embrace strategies in circular economy and digital social innovation, and foster collaboration between a global network of European and worldwide cities and territories to meet the planetary challenges presented by climate change and social inequalities.

MANIFESTO

FAB CITY

3/ GLOCALISM

We support the efficient and shared use of all local available resources in a circular economy approach, to build a productive and vibrant city.

4/ PARTICIPATORY

We engage with all stakeholders in decision-making processes and empower citizens to take ownership of innovation and change-making.

5/ ECONOMIC GROWTH & EMPLOYMENT

We support sustainable urban economic growth by investing in building the skills, infrastructure and policy frame- works needed for the 21st century, thanks to a thorough consideration of social and environmental externalities and the implementation of the polluter pays principle.

6/ LOCALLY PRODUCTIVE

We support the efficient and shared use of all local available resources in a circular economy approach, to build a productive and vibrant city.

7/ PEOPLE-CENTRED

We give priority to people and culture over technology, so that the city can become a living and resilient ecosystem. Autonomous vehicles, digital tools, artificial intelligence and robotic machines must be placed at the service of the people's well-being and expectations.

8/ HOLISTIC

We address urban issues in all their dimension and interdependencies to build sustainable, resilient and inclusive cities for everyone.

1/ ECOLOGICAL

We take an integrated approach to environmental stewardship, working towards a zero-emission future while also preserving biodiversity, rebalancing the nutrient cycle, and sustaining natural resources.

2/ INCLUSIVE

We promote equitable and inclusive policy co-design, through the development of a Commons Approach, regardless of age, gender, income-levels and capabilities.

9/ OPEN SOURCE PHILOSOPHY

We foster a Digital Commons Approach that adheres to open source principles and values open data, in order to stimulate innovation and develop shared solutions between cities and territories.

10/ EXPERIMENTAL

In order to meet the principles just outlined, we actively support the research, experimentation and deployment of innovation which includes but is not limited to: low impact supply chains; distributed production; renewable energy and smart grids; sustainable food and urban agriculture; recycling and reuse of materials, sustainable resource management for energy, food and materials.

These proposals have been drafted with the collaboration of Fab city global initiative members.





THE CITY FACTORY: A GLOBAL MOVEMENT



LIST OF PARTNER
CITIES/REGIONS/
COUNTRIES FROM THE
FAB CITY INITIATIVE



LIST OF THE CITIES
THAT PRESENTED
A PROJECT DURING
THE EVENT



LIST OF THE CITIES
THAT SIGNED THE
MANIFESTO DURING
THE EVENT



THE MAIN ISSUES ADDRESSED

The Creation of Urban Communal Areas

The Fab City's materials

Productive city spaces

TABLE ROUND

1/ THE CREATION OF URBAN COMMUNAL AREAS

GUEST SPEAKERS:

Jean-Louis Missika

CITY OF PARIS
DEPUTY MAYOR

Joost Van Keulen

CITY OF GRONINGEN
VICE MAYOR

Anna Majo Crespo

CITY OF BARCELONA
DIGITAL INNOVATION DIRECTOR

Valentine Guichardaz-Versini

ATELIER RITA
ARCHITECT

Romain Minod

QUATORZE
CO-FOUNDER

THE FORMER SAINT-VINCENT-DE-PAUL HOSPITAL IN PARIS
IS NOW A KEY FIGURE IN THE NEIGHBORHOOD
© LES GRANDS VOISINS

Dense urban centers bring together an unimaginable number of stakeholders, structures, buildings, places. If most of these are attached to the public or private sphere, others are located in the space between: common goods. Besides air or water, the development of our societies have made new common goods emerge like mobility, for example. For a long time considered as a private right, mobility can be thought of as a common good if it is imagined in its entirety and examined as a service that has consequences on our public space.

Urban common goods are also all the uses that we make of the city and, specifically, the usage of unused spaces like urban wildernesses. These are places awaiting construction or to be used. Several initiatives use these locations in order to develop social and solidarity-based projects by offering to accommodate people in difficulty.



For example, this is the case for the former Saint-Vincent-de-Paul Hospital in Paris, which is home to the “Grands Voisins” community project. This emergency housing center can accommodate 600 people, workspaces housing 150 startups, organizations and convivial

spaces. Thus, from an area that was left for ruin, “Grands Voisins” succeeded in creating a new animated public space with a social and solidarity focus, open to the neighborhood. This also prefigures the final project that will continue some of the initiatives that have been developed and tested here.



The emergency housing site in Ivry-sur-Seine was inspired by Mongolian yurts
© ATELIER RITA

This continuity between temporary occupation initiatives and the site's final destination is also present in the Atelier Rita's "emergency housing for migrants and Roma" project. Four hundred people are housed in this industrial wilderness to the south of Paris (former waterworks in Ivry-sur-Seine). In addition to its solidarity approach, Valentine Guichardez-Versini designed this project as a way to reappropriate the site by inhabitants that can once again access this place. The sustainable development aspect was not forgotten either thanks to the choice of reusable wooden units.

"Any project may be a reinvestment in the making"

Valentine Guichardaz-Versini / Architect – Atelier Rita



The "In My Backyard" initiative sets up "Tiny Houses" for migrants
© ASSOCIATION QUATORZE

The "In My Backyard" initiative also proposes a solution for housing migrants. It attempts to use available spaces in volunteers' gardens in order to set up a small house on wheels called the Tiny House for 6 to 24 months. Entirely made out of wood and cardboard, they are ecological and comfortable for people in need, who can then, once in contact with the population, integrate more easily into society. Romain Minod, from the organization Quatorze, who is leading the project, would like to spread this solution at the European level through open source logic and promoting a rationale of collective and solidarity-based land parcel usage.

This desire to fix issues related to housing can also be found in Barcelona where the "Aprop" project was developed through the temporary use of containers. These installations, rapidly set up, represent a reactive and sustainable solution since the material is reusable. Thanks to this, inhabitants in difficulty can continue to live in the neighborhood.

The use of these urban communal areas is also the opportunity to call on citizens for their creativity.

Revitalizing the railroad wilderness of Chapelle Charbon, in the north of Paris, was participatory in nature thanks to a serious game that was put online in order to define the face of the future urban park. Pending the creation of this new green space, which citizens requested to be more undefined and open, a temporary park was set up in order to test new uses. This continually evolving space welcomes numerous functions and events (such as an open garage operated by XYT) and represents a genuine hub of activity for the neighborhood.

"Designing the city as a platform makes it possible for all of the stakeholders to express themselves."

Jean Louis Missika / Deputy Mayor of Paris, in charge of City Planning, Greater Paris projects, economic development and drawing power



A new use for streets with the Superilles/
superblocks project in Barcelona
© CITY OF BARCELONA

A similar approach appeared in Barcelona: “Superilles/superblocks.” The city wanted to reopen access to the public space for citizens by changing the use of streets in the goal of specifically galvanizing these places. This restriction of vehicular access is accompanied by a public consultation with citizens in order to give free rein to their imaginations.

« Using the city as a lab »

Ana Majo Crespo / Director of digital innovation in the City of Barcelona



Reusing former sugar factories in Groningen
© CITY OF GRONINGEN

This participatory process was also used by the student city of Groningen in the Netherlands. City Hall bought the spaces left vacant by former sugar factories. Originally, the municipality had bought back these sites in order to convert them into accommodations, but the economic crisis slowed down development in the region. The municipality thus had to innovate in order to find a new function for these 130 hectares of wilderness and warehouses. So it mobilized inhabitants. Many detailed and documented ideas were collected. Once this consultation process had ended, the event-specific and collaborative function of the site was validated. According to Joost Van Keulen, Deputy Mayor of Groningen, this initiative made it possible to encourage everyone's creativity and entrepreneurial spirit. The city has become a cultural center for the Netherlands and Europe, and all thanks in large part to the imagination of its inhabitants.

Repositioning citizens as stakeholders and creators of solutions is in keeping with the ideals of the Fab City. The temporary occupation of places can be used to transform cities. This was specifically the case for the SNCF's depot locations in the Chapelle neighborhood in Paris, which was transformed in 2016 by the XYT startup into a free garage, open to all.



2/ FABCITY MATERIALS

GUEST SPEAKERS:

Jean-Louis Missika

CITY OF PARIS
DEPUTY MAYOR

Stephan Sicars

UNIDO
ENVIRONMENTAL DIRECTOR

Hugo Christy

REI HABITAT - ReMAKE
MANAGING DIRECTOR

Laura Magro

CEEBIOS
CO-DIRECTOR

Lucie Hamon

BACKACIA
CO-FOUNDER

Clarisse Merlet

FAB'BRICK
CEO

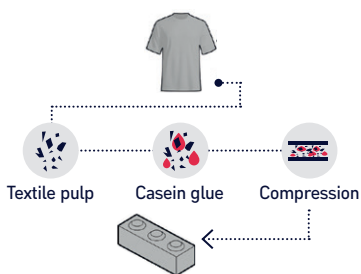
The Fab City's goal is to be a locally productive city whose development is based on the circular economy and social innovation in order to meet the challenges that climate change and social inequalities represent. For that matter, Jean-Louis Missika considers that *"the economic model for production in cities is based on a new paradigm called the circular economy."*

This urban transformation occurs by reinventing construction methods since the Construction – Public Works industry is one of the most polluting, as well as the use of new materials given the shortage of resources used by this sector.

"We must move beyond concrete exactly the same way we must move beyond diesel, by using bio-sourced materials."

Jean Louis Missika / Adjoint à la Mairie de Paris en charge de l'urbanisme, des projets du grand Paris, du développement économique et attractivité

Clarisse Merlet, winner of FAIRE with her Fab'Brick project, proposes, under this framework, bricks made out of recycled textiles that can be used for finishings and fittings, endowed with remarkable characteristics in terms of isolation and durability. Regarding structural works, it is relevant to point out an example of the lumber industry's structuring. REI Habitat is a real estate promoter that only sells wooden buildings. Hugo Christy, Managing Director of ReMake, an REI subsidiary, specifies that this choice is self-explanatory *"because wood is the main bio-sourced material with which it is possible to move the Construction industry away from its dependence on carbon and make a whole section of the world's economy move towards a low-carbon system."* It is evident that lumber is becoming more popular in construction, specifically thanks to responsible real estate promoters and the support of visionary local governments, like the City of Paris.



The Fab'Brick project: reusing textiles in order to make bricks

© CLARISSE MERLET/PROJET FAB'BRICK

Besides the structuring dynamics of bio-sourced material industries, city construction must take place according to new sustainable rules, which meet the challenges of tomorrow. Laura Magro, deputy director in charge of scientific development for the Ceebios organization, which promotes biomimetics, proposes to “*create the city by using life as inspiration.*” By taking the example of the Eiffel Tower, whose latticework was inspired by the structure of the femur bone, she believes that the city must be compared to a living ecosystem. It is thus necessary to be inspired by the technical innovations that living things can teach us, just like it is essential to provide – in the face of limitations – answers coming from resources that are local, abundant and low in energy consumption. The idea of recuperating local materials can also be conveyed through reuse. Under the framework of the Construction industry, this involves increasing the value of construction and demolition waste, specifically since this sector is the largest waste producer in France, with 246 million tons of waste per year. In order to become widespread, it is important to demonstrate that a circular economy can be a profitable economy. This is what Backacia is tackling, a startup incubated at Station F, which created a marketplace dedicated to reusing materials and equipment from the Construction industry. Lucile Hamon, its co-founder, confirms that “*reuse must be systematic*” and that their solution makes it possible to implement this in a digitized manner. This also echoes the new regulations enacted by the City of Paris, which requires that before a building is destroyed, it must be verified whether or not it can be restored and, if not, it must be taken apart. Indeed, many specialists consider that 80-90% of the materials in a building can be reused.



Waste processing project in Morocco
© UNIDO

Above and beyond the Construction industry, the processing of waste represents a central question in urban transformation, as indicated by the examples of Morocco, Egypt and Madagascar cited by Stephan Sicars, Environmental Director at UNIDO, a United Nations agency specialized in industrial strategy and development. These examples highlight the potential for local development and the positive impact on their environmental footprints, all the while requiring support from developed countries in the transmission of knowledge and innovation.

New emerging solutions already exist and their spread is due to the desire to implement them and, as Jean-Louis Missika said in closing, “*all the examples from this roundtable must bring awareness that it is possible to define a new value chain and that this change in paradigm occurs by changing mindsets as well as regulations enabling easier access.*”

TABLE ROUND

3/ WHAT KIND OF SPACES FOR THE PRODUCTIVE CITY?

GUEST SPEAKERS:

Célia Blauel

CITY OF PARIS
DEPUTY MAYOR

Anni Sinnemäki

CITY OF HELSINKI
DEPUTY MAYOR

Tim Caufield

EU / FEDER
DIRECTOR OF THE INNOVATIVE
URBAN ACTION INITIATIVE

Jonathan Sebbane

SOGARIS
CEO

Benjamin Saada

EXPLISEAT
CEO

Théophile Champagnat

CYCLOPONICS - LA CAVERNE
CEO

Imagining “a new economic model is not a utopia, but it is designed to become the rule,” Celia Blauel, Deputy Mayor of Paris in charge of the Environment and Water, confirmed. Whether the initiatives are European, State-based, municipal or private, cities are ground zero for this revolution that has already started, and, even now, they demonstrate that an economic approach based on strong environmental requirements can be viable and robust.

This has been demonstrated by Eau de Paris, a municipal public company since 2009, which believes water is a common good and must not be the subject of market-oriented management, but must be distributed at the right price, calculated according to actual production and distribution, purification and water resource protection costs.

The company Expliseat, which manufactures the lightest airplane seats in the world, has also decided on an innovative economic and logistical model. In order to facilitate exchanges between its engineers and operators, between research and development and production, this company decided to create small and moderate-sized production sites in cities, closer to its research center and customers.

The optimization and use of urban resources can also become a real economic opportunity for new companies. In order to reduce the extremely high vacancy rate of underground spaces in Paris, Théophile Champagnat created the Caverne, which adapts underground parking lots into soilless urban farms capable of producing closer to Parisian consumers.

In Velez-Malaga, thanks to its “brick-beach” project, materials from illegal dumps will be transformed by an innovative treatment plant into a high-quality recycled aggregate that can be used instead of sand on beaches.



The Caverne uses unused underground parking lots for urban farming in Paris
© LA CAVERNE

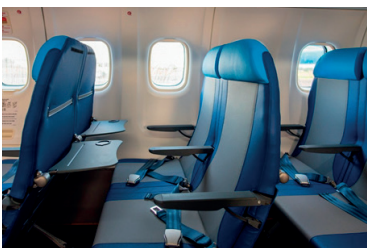
On the whole, these changes are part of a transformation in urban logistics, which, as Jonathan Sebbane explains, is characterized by a two-pronged movement, on the one hand, a quest for huge sizes (construction of gigantic warehouses along cities' peripheries, which attempt to make goods available for the vast consumption basins that cities represent) and, on the other hand, cleverly interconnecting small "last kilometer" logistical spaces.

This new urban order has created 75 jobs per 5,000 m² for urban logistics, 3.34 jobs for Eau de Paris, 15 for the Caverne, etc.



Creation of a new logistics center in order to facilitate "last kilometer" logistics on the outskirts of cities like here in Vitry-les-Ardoines next to Paris
© SOGARIS

Above and beyond longevity, these new models make it possible to actually become aware of environmental issues. Consequently, Eau de Paris, beside the distribution of potable water, which reduces the use of plastic bottles and involves protecting water sources (like helping farmers towards more sustainable practices), uses water resources more efficiently. Thanks to its dual channeling network, Paris can produce non-potable water in order to clean the streets and water gardens. The buildings that are connected to this system, like Paris City Hall, can use it, thanks to water's heat-producing properties, for heating in the winter or to stay cool, thereby avoiding air conditioners. Similarly, the geothermal heat production center in the new Clichy-Batignolles eco-neighborhood, inaugurated in 2017, makes it possible to cover 83% of the eco-neighborhood's heating needs (heating and hot water) with 6,500 inhabitants and 260,000 m² of offices.



Expliseat manufactures its airplane seats in cities, which facilitates the distribution of products to customers
© EXPLISEAT

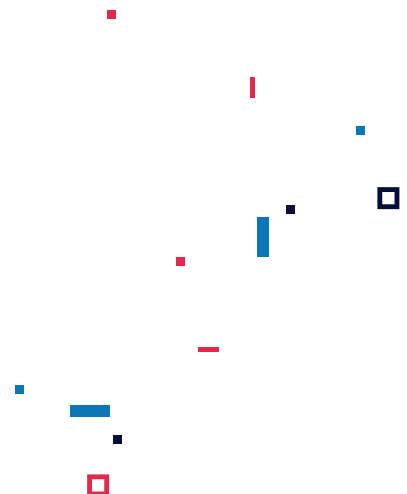
In addition, local production makes it possible, like for Expliseat, to avoid traveling to faraway sites or, in the manner of the Caverne, to distribute its production by bike or electrical vehicles. On the whole, the organization of merchandise flows makes it possible to fight against climate deregulation by reducing global emissions and congestion. Moreover, when companies move to cities, municipalities have influential means so that they modernize their fleets and use clean vehicles.



Helsinki turned its urban highways into streets for pedestrians and cyclists in order to reduce gas emissions
© CITY OF HELSINKI

As Annie Sinnemäki reminded, an overall transformation cannot, however, be without a global and ambitious strategy. In order to reach its 2035 objective of reducing gas emissions by 80% compared to 1990, one of the components under the strategy adopted by Helsinki was to remove its seven urban highways. These spaces, currently reserved exclusively for motorized vehicles, will become streets for pedestrians and cyclists, bordered by residential buildings housing 70,000 people and workspaces. Consequently, the city plays a decisive role, which requires real determination, as was demonstrated in this case after numerous submissions were filed against the municipality with one of the highest administrative courts in the country in order to block it from closing four of these highways, even though political consensus seemed to exist on this subject at the local level.

This kind of risk-taking, legal in Helsinki's example, is part of the DNA of productive city transformations. To encourage this, the European Commission created the "Innovative Urban Action" initiative, which understands that, since it is about testing new solutions, projects may fail. In order to see them through, the European Union covers and advances 80% of the budget. For example, the "brick-beach" project in Velez-Malaga benefited from this program. It was able to be financed since it responded to the initiative's five pre-requisites: be innovative at the European level; be transferable elsewhere in Europe; bring together multiple public, private, non-profit or for-profit partners; be assessable in order to show other cities what works and what does not work; be carried out within three years or less.





PRESENTATION OF SPECIFIC CASES

Water and salvaging energy

Urban farming and sustainable food

Urban logistics and new mobility

Construction and circular production

New urban strategies

The real estate of tomorrow and industry of the future

WORKSHOP

PRODUCING AND SALVAGING WATER AND ENERGY



Olivier Fraisse

DIRECTOR OF THE DEPARTMENT
OF SANITATION AND WATER

Paris's Climate, Air and Energy Plan, which was unanimously adopted in March 2018, must establish a carbon neutral city by 2050.

However, we need to start taking action right now, and last July 11th at Paris City Hall, on this day dedicated to exchanging concrete experiences in Paris, Europe and around the world, was a great opportunity to take a step forward and react, right here and now.

The Department of Sanitation and Water, along with other City of Paris services, is fully taking part in this transformative process, in line with the commitments made during the COP 21. For example, the Mayor of Paris's decision to convert the municipal diesel vehicle fleet corresponds to this rationale. Similarly, with our partner "Eau de Paris," the City of Paris is developing the geothermal doublet technique in the Clichy-Batignolles Joint Development Zone. This involves taking advantage of the Parisian underground in order to use a carbon-neutral and totally renewable energy. Since 2012, we have also tested salvaging heat from wastewater in sewers in order to heat a pool or school. The Department of Sanitation and Water also relies on a precious non-potable water network for the maintenance of the public space and in order to supply water to the decorative fountains and lakes in the Bois de Vincennes and the Bois de Boulogne. I cannot forget about the potential for smart garbage collection as a source of wealth and pluvial zoning, which by better preserving water resources, prepares the City of tomorrow to better respond to climate challenges and heat waves.

With the experiences shared by Groningen and Amsterdam, together, we were able to determine that tomorrow starts today for a more sustainable and pleasant city to live in.

THE CORDEES OR CORESPONSIBILITY PROJECT IN DISTRICT ENERGY EFFICIENCY & SUSTAINABILITY IN PARIS



Roxane Billion-Prunier

ENERGY AND ENVIRONMENT ENGINEER –
EAU DE PARIS *

*Eau de Paris is the first water company in France. It supplies nearly 3 million users with potable water.



Agathe Cohen

ASSISTANT TO THE INSTITUTIONAL SECTOR –
DEPARTMENT OF SANITATION AND WATER
FOR PARIS CITY HALL

Key Figures

Description of the neighborhood:

54 hectares in the Northwest of Paris,
3,400 accommodations in the Clichy-Batignolles
neighborhood, approximately 7,500 inhabitants

The objectives of energy performance:

- Reach carbon neutrality
- Heat consumption lower than 15 kWh/m²/year
- Reusing rainwater
- Production of approximately 4,500 Mwh/year with the installation of 40,000 m² of photovoltaic rooftops

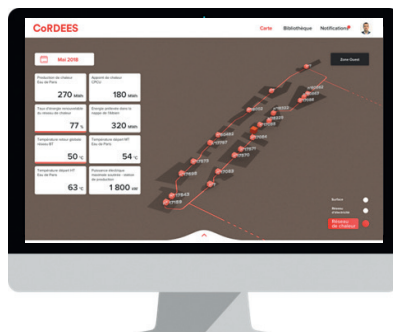
Winner of the European “Innovative Urban Actions” call for projects, the City of Paris, partnered with Paris Batignolles Aménagement, EMBIX, Une Autre Ville and Armines/ParisTech, are going to carry out the first Parisian smart grid project: CoResponsibility in District Energy Efficiency & Sustainability (CoRDEES). The City of Paris has decided to develop its water-energy couplet and rely on its public operator Eau de Paris, in charge of the production and distribution of potable water, in order to provide geothermal energy from the Albien aquifer as a source of renewable heat. Consequently, this choice has fulfilled the two-pronged objective of securing the potable water supply in the Parisian region in case of a major crisis and producing renewable energy in order to supply the neighborhood’s heating network.

This unprecedented energy management initiative will take place over 54 hectares in the northwest of Paris, more specifically in the Clichy-Batignolles neighborhood, and will be completed in 2020. Its interest lies in saving energy during a time of overconsumption and adapting to climate change.

Aware that the act of building is not enough and that the technical performance of buildings remains a necessary lever, but one that remains insufficient if users are not involved, the City of Paris, along with the CoRDEES project, is testing a new type of governance that involves the

principle of energy co-responsibility for all stakeholders. Based on outsourcing the desired energy performances and relying on a real-time digital management tool for energy production and consumption data, local users will be able to visualize and make adjustments regarding their own consumption.

Consequently, it will be possible to measure actual energy consumption (and not estimated) in the neighborhood where eventually approximately 3,000 residents and 4,000 employees will work and live, thereby enabling its optimization.



Screenshot tracking energy consumption
with the CoRDEES platform
© EMBIX

FOR MORE INFORMATION:

<http://www.clichy-batignolles.fr/gouvernance-energetique-de-quartier-cordees>

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PROJECT/2

THE CITY OF GRONINGEN'S NEUTRALITY OBJECTIVES



Floor de Jong

STRATEGIC ADVISOR AND HEAD
OF INTERNATIONAL ECONOMIC AFFAIRS,
CITY OF GRONINGEN

Key Figures

Energy consumption:

the city's 101,000 buildings represent
30% of the energy consumed by Groningen.
99% of this energy comes from natural gas.

Goal:

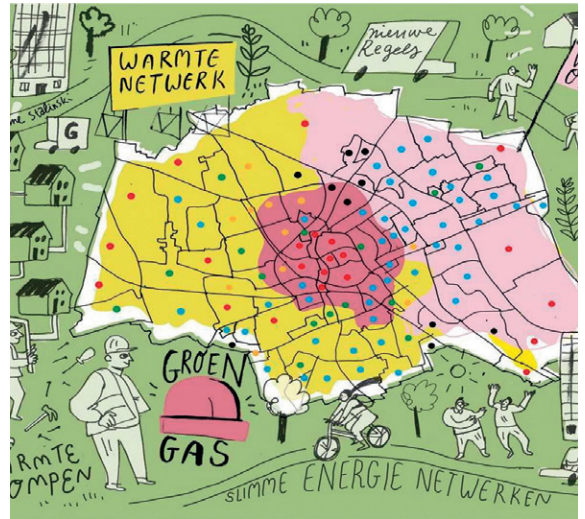
The City of Groningen is working towards
being energy neutral in 2035 by turning
more towards renewable energies.

Groningen has set an objective for energy neutrality by 2035 by developing local solutions that make it possible to involve all stakeholders and citizens in the ecological transition process. One of its solutions is the development of a heating network, only using natural gas, at the neighborhood level.

The city has approximately 101,000 buildings, which account for 30% of the city's energy consumption. All of these buildings are connected to an infrastructure that only uses natural gas to produce heat.

Wanting to rely on this infrastructure in order to reach its objectives, the municipality decided to build its action plan at the neighborhood level. Thus, in each of them, a three-step plan has been applied.

The first is data collection. This makes it possible to completely analyze a neighborhood, on the basis of its energy production and consumption. The development of scenarios and options based on the data collected then becomes possible through the association of different stakeholders: the city's government, municipalities, a gas company, a network operator, a housing company and a geographic information office. Three energy options are then presented to the inhabitants and stakeholders from the region: electricity, biogas and geothermal. Their exchanges, the cornerstones in building an energy transition plan, are sent to the municipal department in charge of fulfilling this objective.



Energy transition at the neighborhood level in Groningen

© CITY OF GRONINGEN



Groningen City Hall

© CITY OF GRONINGEN

FOR MORE INFORMATION:

<https://www.cityoftalent.nl/themas/energie>

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PROJECT/3

THE METABOLIC PROJECT IN AMSTERDAM'S NORTHERN DISTRICT



Chris Monaghan

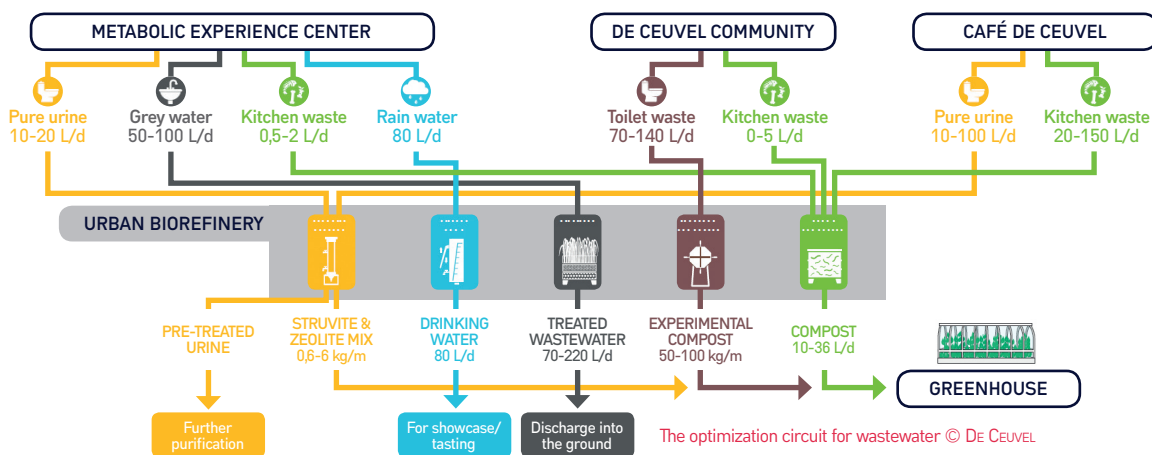
CO-FOUNDER AND DIRECTOR
OF INNOVATION AT METABOLIC

The Metabolic project, a cleantech* testing zone, was developed in Amsterdam's northern district. It was implemented in a polluted industrial site renovated for unique and sustainable urban development projects in Europe. In addition to the opening of the De Ceuvél café, this parcel has become a testing and research laboratory in terms of water depollution and production. Wastewater is perceived as a usable resource for different activities. In order to do this, different stakeholders are brainstorming and working together: a large number of volunteers, research institutes, specialists in new technologies as well as governmental agencies.



Café De Ceuvél in Amsterdam
© DE CEUVEL

*Technologies working to limit the use of natural resources in economic activities. This leads to a reduction in environmental impact and the volume of garbage.



FOR MORE INFORMATION:

<https://deceuv.nl/en/about/sustainable-technology/>

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URBAN FARMING AND SUSTAINABLE FOOD



Carine Bernede

DIRECTOR OF GREEN SPACES
AND THE ENVIRONMENT

Climate change issues require us to rethink the urban model within a global approach.

The city's development is underpinned by environmental objectives for a resilient and inclusive city, based on three pillars: ecological, social and economic. Food is a major component of this objective. Consequently, by 2030, the City of Paris has decided to decrease the region's food carbon footprint by 40%, increase the food produced in the Paris region by 50% compared to 25% currently, eliminate food insecurity, reach 20% in useful agricultural land dedicated to organic farming in the Parisian region, encourage local food distribution networks and logistics that are respectful of the environment, invite Parisians to opt for a flexitarian diet, which includes less animal protein.

Since 2010, with its plan for community food services, which shoots for 50% sustainable food between now and 2020, and up until 2018, the year the sustainable food strategy was adopted by the region, the City of Paris has made food a key element in its objective to reach carbon neutrality by 2050.

Faced with climate changes, these Parisian initiatives are not isolated. The 700 mayors who signed the COP 21 as well as the 86 metropolises from the C40 share their experiences in order to limit their effects.

Two projects presented during the Fab City Summit illustrate the strategies set up in Paris: encourage and bring together stakeholders from the entire production chain, from increasing the value of disused places by transforming them into urban farms, to creating value and integrating those who are socially excluded. Sharing with other regions is essential, a source of inspiration, as Lille and Detroit demonstrates here with its Cuisine commune and "agro-neighborhood" projects, respectively.

PROJECT/1

THE CULTIVATE PROJECT: A LIVING ECOSYSTEM AT THE SERVICE OF URBAN FARMING



Sidney Delourme

CO-FOUNDER OF CULTIVATE



Sarah Msika

CO-FOUNDER OF CULTIVATE

In order to illustrate the challenges of urban farming in a dense milieu, the company Cultivate, the winner of the “Chapelle Internationale” call for projects is at the cutting edge of innovation thanks to selecting specialized partners, with a performance objective that is simultaneously economic, societal and environmental, as well as finding new ways to think about farming in the city. The co-founders of Cultivate, Sidney Delourme and Sarah Msika, would like to create one of the largest urban farming ecosystems in Europe on the rooftop of “Chapelle International.” This will translate into an area of 7,000 m² designed as an incubator and including, specifically: a productive greenhouse with hydroponic vertical farming, a vegan cafeteria as well as a food lab promoting French startups. The crops will be grown both inside and outside the building.



ILLUSTRATION OF THE CHAPELLE INTERNATIONALE PROJECT IN THE 18th ARRONDISSEMENT
© CABINET BOND SOCIETY POUR CULTIVATE / CHAPELLE INTERNATIONALE

FOR MORE INFORMATION:
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PROJECT / 2

FOOD2RUE / LA PANAMÉENNE PROJECT: A 100% FEMALE CULINARY INCUBATOR WORKING TOWARDS PROFESSIONAL INTEGRATION



Agathe Cousin

PRESIDENT AND CO-FOUNDER
OF FOOD 2 RUE

Food2Rue is a culinary incubator working towards professional integration, designed on a cooperative model and meant for women far removed from the job market. It works to direct them towards food professions (food services, local businesses) and entrepreneurship. While 4.7 million women are professionally excluded in France, 60,000 jobs remain empty each year in the food industry. In favor of social progress, the Food2Rue team mobilizes for the equality of men and women by promoting the right to economic initiatives for those who are socially excluded. This process is accompanied by the development of accessible and sustainable food models through the use of local products and sales from local distribution networks. Currently, in Paris's 14th arrondissement, 12 employees prepare and sell these meals.



© Food2Rue



© Food2Rue

PROJECT/3

TAST'INFIVES PROJECT: A SHARED KITCHEN



Louise Fourquet
CEO OF BALUCHON CONSEIL



Antoine Plane
PROJECT MANAGER
FOR THE CITY OF LILLE



© TAST'INFIVES

The City of Lille and its partners, with the support of the European Union, have promised to create a kitchen with a social purpose, open to everyone as a response to urban poverty. In 2019, this shared kitchen will offer neighborhood residents the opportunity to get together during culinary workshops in a former industrial wilderness. Fives Cail is located in a new eco-neighborhood, which will include 1,200

accommodations, 7 hectares of green space and a third place. The spaces will be shared with artisanal food production premises, an indoor farm and a shared dining room for restaurateurs and local producers. Its objectives are the following: encourage solidarity, communicate the keys for healthy and sustainable food, make it possible to create jobs and promote diversity.

FOR MORE INFORMATION:

<https://www.lille.fr/Fives/Cuisine-Commune-projet-Tast-in-Fives>

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PROJECT/4

DETROIT'S SUSTAINABLE URBAN (AGRO) CULTURE PROJECT



Blair Evans

DIRECTOR OF INCITE FOCUS*

*Fablab located in Detroit

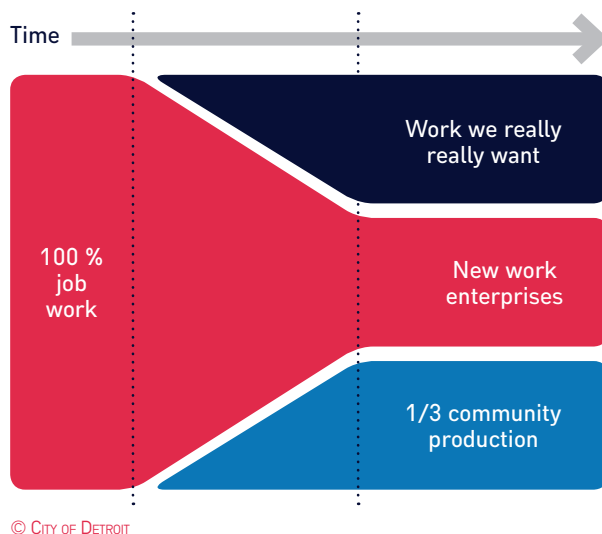
Key fact:

Detroit is larger than Boston, San Francisco and Manhattan combined for a population that is three times smaller. Many spaces can be used for urban farming.

The city of Detroit in the United States is a pioneer in urban farming and seems to have left behind the difficulties related to the decline of the automobile industry. The Motor City succeeded in genuinely reconverting abandoned urban areas after its demographic downturn.

Consequently, the city gives people the opportunity to get involved in "agrihoods," places located throughout the city and whose production is distributed free of charge to neighborhood residents, churches and schools.

Residents are encouraged to produce their own food independently and cultivate a sense of satisfaction through farming. This culture introduces new consumption habits, more reasonable and responsible, as well as a different life balance.



FOR MORE INFORMATION:
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URBAN LOGISTICS AND MOBILITY



Caroline Grandjean

DIRECTOR OF ROADS AND TRANSPORTATION

Large urban areas and the City of Paris in particular, with its extremely dense center, must provide their users with well performing structures and networks enabling the circulation of people and goods. Over the past ten years, we have seen a genuine transformation in the mobility of both individuals and merchandise.

In 2000, half of Parisians owned a car; currently it is down to a third. This situation is the result of developing mass transportation as well as shared mobility services (Uber, Velib, etc.), and all these developments are based on better and faster performing digital tools.

This revolution in mobility is far from over. All you need to do is sit down at a café and you will see cyclists, scooters, delivery cycles, food deliverers on skateboards, your neighbor stopping to pick up her latest purchase from a locker, etc. Transformations are underway towards well thought-out urban mobility. I would like to remind you about Anne Hidalgo's objectives: continue to reduce the number of cars and remove diesel vehicles by 2024.

The mobility of the future will be, of course, sustainable and environmentally friendly, but also innovative. The City of Paris has joined this challenge. It has already experimented with a self-driving shuttle in the Bois de Vincennes. It recently inaugurated the Chapelle International Logistics Facility, a building combining a warehouse, data center, urban farming, etc. and it continues to remain at the service of these changes and new models. In this context, today we are going to talk about three innovative initiatives: self-driving vehicles in merchandise transportation, an automated bus line in Helsinki and a MaaS (Mobility as a Service) on a global scale.

PROJECT/1

URBAN LOGISTICS, A MAJOR SOLUTION FOR CLIMATE AND POLLUTION ISSUES



Jonathan Sebbane

CEO OF SOGARIS

*Sogaris is a semi-public company specialized in logistical real estate.

With the multiplication of transactions and the advent of e-commerce, urban logistical needs are evolving, especially those regarding “last kilometer” deliveries. SOGARIS is faced with this transformation and experiments in innovative ways in order to envision how to organize the region.

One of the options that the company studied was the future use of self-driving vehicles in last kilometer deliveries. The use of this kind of transportation will make it possible to create a denser network in the

region in order to carry out deliveries. These vehicles will be intelligent enough to park, respond to orders and find itself in a logistics database. SOGARIS anticipates the docking and circulation of these future vehicles as soon as it develops new logistics platforms like the Bercy Charenton one in Paris's 12th arrondissement. This multimodal platform in the process of development is designed to handle ecologically minded transportation and innovative experiments.



Rendering of the Bercy Charenton logistics platform in Paris's 12th arrondissement

© SOGARIS

FOR MORE INFORMATION:

<http://www.sogaris.fr/sogaris-selectionne-lors-du-concours-inventons-la-metropole-du-grand-paris/>

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THE FABULOS PROJECT (FUTURE AUTOMATED BUS URBAN LEVEL OPERATION SYSTEMS) FROM THE CITY OF HELSINKI



Lina Oilinki

HEAD INTERNATIONAL AFFAIRS ADVISOR TO
THE CITY OF HELSINKI

Key Figures

In 2017, in Helsinki, transportation consisted of:

- 34% by foot,
- 34% by bus,
- 22% by car,
- 9% by bicycle.

In its 2017-2021 strategy, Helsinki wanted to become a testing ground in order to create a more functional city. The city alone cannot meet the challenges that it faces and would like to renew its partnerships with any stakeholder wanting to develop useful solutions for the population. In its action plan, the Finnish capital is working to become a global reference in urban digitization.

Helsinki gives project promoters the means to test their innovations specifically through the construction of a 5G internet network, access to data (Open Data), data collection by city bicycles and the construction of the first automated bus route in June 2016. Furthermore, Finland has voted on legislation making it possible to use automated vehicles.

It is with this desire to be a precursor in the sector of automated public transportation that Helsinki joined the European Union's H2020 project: FABULOS. The EU helps the city financially with up to 8 million euros (including 5.5 million for the purchase of the bus) so that it sets up an automated bus prototypical system. After this testing phase, and if it is crowned a success, then the EU will encourage other European cities to develop automated transportation networks.

FOR MORE INFORMATION:

<https://forumvirium.fi/en/fabulos-brings-self-driving-buses-to-the-streets-of-europe/>

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PROJECT/3

IOMOB: BLOCKCHAIN – INTERNET AT THE SERVICE OF MOBILITY



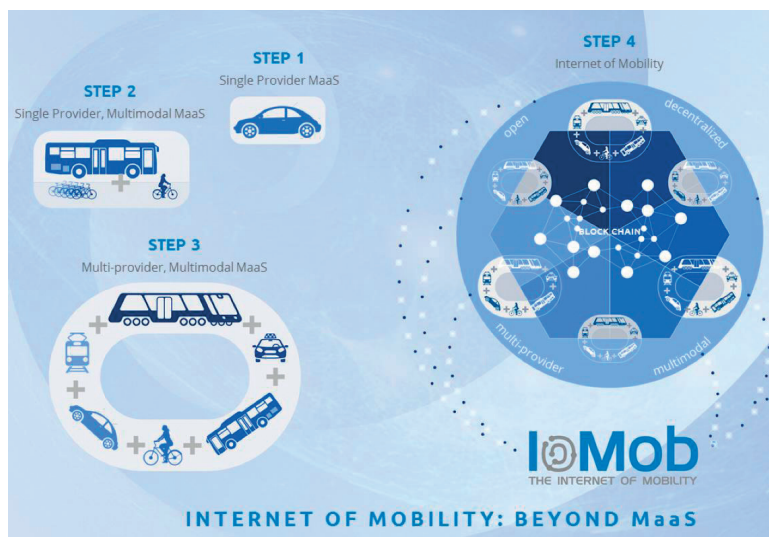
Boyd Cohen

CO-FOUNDER OF IoMob

A new way of understanding urban mobility is possible. A system where mobility is made easier for users. That is Boyd Cohen and his company, Iomob's, basic premise.

The developed service's final objective is to make it possible for users to discover, reserve and pay for any mobility service, at any time, around the world. Consequently, people would no longer need to download several applications in order to move around each city that they visit.

To do this, Iomob developed an application, which is based on the data collected and shared by numerous public and private stakeholders from the mobility sector. Thus, thanks to Blockchain data storage technology, the application will be capable of proposing the best combination of transportation methods in order to get around. Moreover, Iomob would like to propose a single payment tool that works for all the different kinds of transportation in all of the world's major cities.



The internet of mobility imagined by IoMob
© IoMob

CONSTRUCTION AND CIRCULAR PRODUCTION



Philippe Cauvin

DIRECTOR OF PUBLIC BUILDINGS AND ARCHITECTURE

The circular productive industry is a decisive element in our daily fight against global warming. Of course this involves subjects such as production flows and waste management, and we have internally organized in order to salvage small equipment (bathroom items, lights, dropped ceilings, etc.) in order to reuse them in other facilities during repairs or small renovations.

However, we are also faced with a cultural shift that needs to be initiated regarding low-carbon materials and the embodied energy economy for production and transportation; currently, materials represent nearly 60% of the carbon emitted by a building during construction and its operation over fifty years. The recourse to materials with low environmental impact is an essential channel.

In order to set up industries manufacturing low-carbon materials in significant volumes, cooperation between public and private stakeholders is key. The City of Paris and the DCPA, as the contracting party, would like to engage with economic stakeholders and contribute to this development dynamic, just like the “hummingbird” model, everyone assumes their share! The straw industry is a strategic opportunity in the Ile-de-France region with a local available resource and a structured network of professionals. In order to support low-carbon innovation, I have initiated within the DCPA a Pro-Straw training program for 10 agents, who will then be able to support “educated” projects from contracting parties. Everything is being implemented in order to reach the Carbon neutrality objective while guaranteeing the quality and safety of users.

AN ECOLOGICAL MATERIAL IN ORDER TO EFFECTIVELY INSULATE BUILDINGS: STRAW



Benoit Rougelot

CO-FOUNDER AND PRESIDENT
OF THE COLLECT'IF PAILLE*



Clara Simay

CO-MANAGER OF THE GRAND HUIT AGENCY

*Ile-de-France branch of the French Network
for Straw Construction whose objective is to
promote the use of this material.

Key Figures

Technical characteristics of Straw in construction:

- Insulating power of the material: $\lambda = 0.052 \text{ W/(m.K)}$
be a $R = 7.1 \text{ m}^2.\text{K/W}$ for 37 cm (easily attainable level)
- Resistance to condensation coefficient: $\mu = 1,15$
- Classification of its reactivity to fire:
(EN 13501-1:2007) B – S1 – d0 corresponding
to “M1 non-flammable combustible”
- Sound reduction: 45 dB
- Bâtiment Biosourcé certification benchmark: 40 kg/m^3
- Emission of volatile pollutants: class A+

The use of straw as a material in construction was developed in Nebraska in 1886 and was introduced in Montargis (France) in 1920. Since then, more than 500 buildings have been insulated with straw. It is specifically used in the construction of schools, gyms, organic produce stores, logistical buildings, etc.

This insulation technique guarantees very promising sound and energy performances and, contrary to preconceived notions, bundles of straw are not vulnerable to fire.

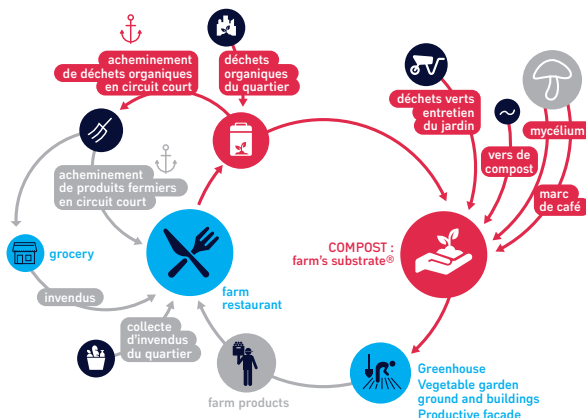
The “Ferme du Rail,” supported by Collect'IF Paille, was the winner of “Reinventing Paris,” the innovative urban call for projects. This agro-urban space will include housing, a farm, a restaurant and will be insulated with bundles of straw.

Among the advantages of this material, Collect'IF Paille says that it perfectly fits in with the circular economy and its low environmental impact objective: using it does not produce carbon, on the contrary, it consumes it! Moreover, the installation of bundles of straw is perfectly adapted to “back-to-work” labor. Lastly, at $\text{€}4/\text{m}^2$, straw is very competitive in the bio-based materials market.



Rendering of the Ferme du Rail

© COLLECT'IF PAILLE



The proposed circuit for repurposing waste at the Ferme du Rail

© AGENCE GRAND HUIT

THE “CYCLE TERRE” PROJECT IN THE CITY OF SEVRAN”: REUSING RUBBLE FROM CONSTRUCTION SITES IN THE MANUFACTURING OF TERRACOTTA CONSTRUCTION MATERIALS



Silvia Devescovi

IN CHARGE OF PILOTING THE CYCLE TERRE
PROJECT IN THE CITY OF SEVRAN

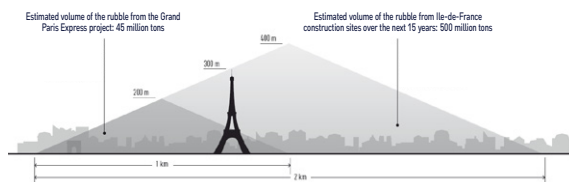
Developed by the City of Sevran (Ile-de-France), Grand Paris Aménagement and the Antea Groupe consulting firm, the “Cycle Terre” project was the 2017 winner of the call for projects “Industrial Demonstrators for the Sustainable City” launched by the Departments of Territorial Cohesion and Ecological and Solidarity Transition.

This innovative project's goal is to use the earth excavated during the construction of the Grand Paris Express, an extension of 200 km of metro lines around Paris. This large-scale construction site should produce approximately 45 million tons of rubble that Cycle Terre would like, at least in part, to reuse.

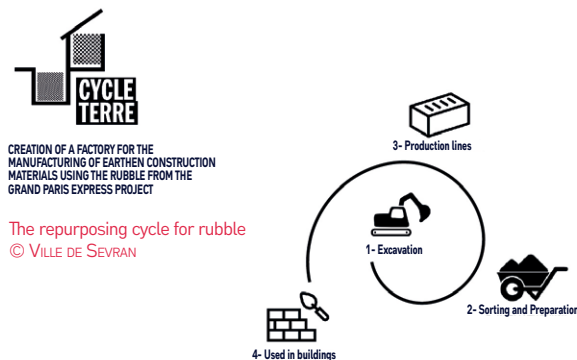
This is specifically the case for the future Sevran-Livry train station whose excavated earth will be sorted according to its composition (sand, clay, gravel, etc.) in order to produce four different materials (light earth, bricks, clay panels and plaster). These materials will be subsequently used in construction projects neighboring the extraction site, like, for example, the “Sevran Terre d'Avenir” renovation project.

Consequently, Cycle Terre is perfectly inscribed in a circular economy rationale with low environmental impact, due to the proximity between the site where the materials are produced and the construction site using them. Moreover, the project optimizes natural resources by repurposing waste and generating economic value.

In 2018, Cycle Terre was named the winner of the call for projects “Innovative Urban Actions in the European Union,” which will provide financing in the amount of 4.8 million euros.



Presentation of the volume of rubble from the Grand Paris Express Project
© CITY OF SEVRAN



FOR MORE INFORMATION:

<http://www.grandparisamenagement.fr/cycle-terre-demonstrateur-industriel-pour-la-ville-durable/>

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THE “ON SITE ROBOTICS” PROJECT: SUSTAINABLE AND ECOLOGICAL CONSTRUCTION WITH 100% NATURAL MATERIALS AND 3D PRINTERS



Areti Markopoulou

ACADEMIC DIRECTOR AT THE INSTITUTE FOR
ADVANCED ARCHITECTURE OF CATALONIA

Key Figures

- 40% of the world's energy consumption and 36% of CO2 emissions in the atmosphere came from buildings in 2010 (EU Directive 2010).
- 1.6 billion people do not have access to decent housing (Habitat, 2015).

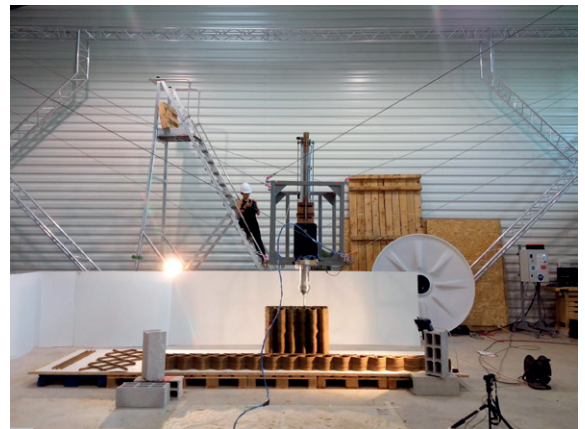
Construction and housing are responsible in large part for energy consumption and CO2 emissions in major cities. Moreover, poor housing is a major issue worldwide.

In order to respond to these social and environmental issues, the “On Site Robotics” project, supported by the Institute of Advanced Architecture of Catalonia, developed an innovative construction technique.

First of all, the base material used is 100% natural. It is made out of earth, to which is added additives like clay, aggregate, water and minerals. This material has many qualities like flexibility, fire resistance, low costs, recyclability, the abundance of its ingredients and its heat-conservation properties.

This material is then applied in successive layers, thanks to a large-scale 3D printer, which is suspended in the air by cables, themselves connected to four pylons. This innovative system is assisted by the use of drones, programmed to fly automatically. They are used to monitor the progress of the construction through multispectral cameras that make it possible to confirm whether or not the material is dry enough to create the structure.

Simple to install and not too onerous in terms of logistics, this technology provides a new and very promising concept for building construction.



The 3D printer is suspended by cables

© INSTITUTE FOR ADVANCED ARCHITECTURE OF BARCELONA



Rendering of a building constructed according to the “On Site Robotics” project's method

© INSTITUTE FOR ADVANCED ARCHITECTURE OF BARCELONA

WORKSHOP

NEW URBAN STRATEGIES



Claude Praliaud

DIRECTOR OF CITY PLANNING

Design the City Differently

Paris's political ambition in terms of urban, social and environmental innovation is significant.

The Saint Vincent de Paul project is a good example of this desire to simultaneously face up to the challenges related to climate and biodiversity, as well as a change in lifestyles and uses, resulting in different needs in terms of mobility and urban services.

In its development method, initiated by the temporary occupation of the Grands Voisins, which required us to rethink the neighborhood's future uses and was inspired by the collaborative experiment "reinventing Paris," the Saint Vincent de Paul project would like to be an example of:

- The co-creation of public spaces under the framework of participatory workshops,
- The two-pronged objective of preserving cultural heritage while supporting the circular economy through the upkeep of 60% of existing buildings,
- Sharing functions in "super-facilities" (school, gym, day nursery) for the sake of optimizing public financing,
- Mixed programming for premises with diversified housing (social, intermediary, first-time buyers, participatory) and likely to accommodate innovative production-based activities.

So many different objectives at work, which all illustrate the way to "design the city differently."

THE “GRANDS VOISINS” PROJECT AND THE TRANSFORMATION OF A DECOMMISSIONED SITE IN AN ECO-NEIGHBORHOOD



Paul Citron

DEVELOPMENT DIRECTOR
FOR PLATEAU URBAIN



William Dufourcq

DIRECTOR OF THE AURORE ORGANIZATION
FOR THE GRAND VOISIN NEIGHBORHOOD

Key Figures

- 20,000 m² of buildings and 15,000 m² of outdoor spaces in Paris's 14th arrondissement
- 600 residents
- 250 structures (NGOs, artists, startups, artisans)
- Visitors: neighbors, Parisians, tourists

Since 2015, the Grands Voisins have set up shop in the former Saint-Vincent-de-Paul hospital. This temporary occupation, the largest in Europe, will last until 2020 and will ultimately result in the creation of an eco-neighborhood.

For the past five years, this neighborhood has welcomed a wide variety of social, artistic, event-based and artisanal activities. Premises were made available to many structures (250!) and a genuine creative ecosystem has emerged in this site, which, only a few years earlier, had fallen into disuse. Each person's skills are freely expressed and shared during activities and workshops. Active programming was set up in order to animate this neighborhood and transform it into a genuine center of activity in Paris.

This site also hosts six housing centers that each welcomes a specific public. People in need are assisted on a daily basis in their projects and social reintegration. Many social and solidarity initiatives have resulted for both people in vulnerable situations as well as for the neighborhood's inhabitants.

This innovative project is headed by three structures. Yes We Camp handles the reception of the general public as well as the café, restaurant and campground. The Aurore organization helps impoverished people and takes care of emergency housing. Lastly, Plateau Urbain is in charge of office spaces and the site's collective dynamic.



The Grands Voisins open-air market
© LES GRANDS VOISINS



Grands Voisins seen from above
© LES GRANDS VOISINS

The Grands Voisins campground
© LES GRANDS VOISINS

FOR MORE INFORMATION:
<http://lesgrandsvoisins.org/>

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INVOLVING AMSTERDAM'S RESIDENTS IN THE CITY'S FUTURE



Gerard den Boer

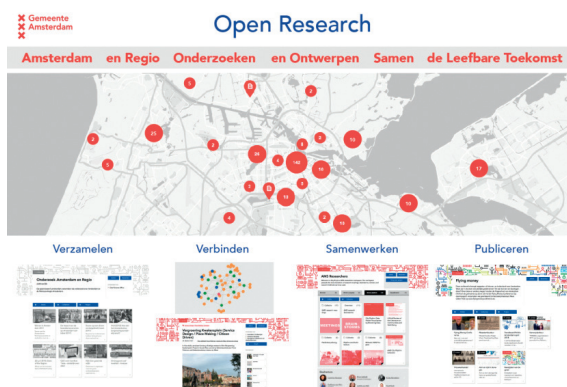
IN CHARGE OF ECONOMIC AFFAIRS
FOR THE CITY OF AMSTERDAM

In Europe, Amsterdam is a pioneer in terms of urban foresight. This capital's innovative vision was awarded when it was named European Capital of Innovation in 2016.

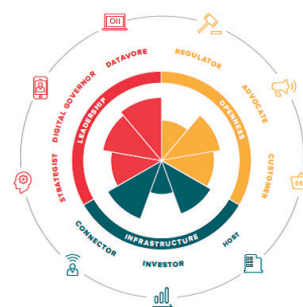
Following this award, the city asked inhabitants to imagine a new development project for their city: "Make Your City!" 470 projects were proposed including some that came to pass with the support of the city.

In parallel to this, the "Venice of the Netherlands" developed data collection in order to offer this information to as many people as possible through a dedicated platform. Thanks to this Open Data, project promoters were able to benefit from precious information in order to make the city smarter and more pleasant to live in.

Amsterdam would like to involve as many of its residents as possible since they are best able to define their needs and find solutions that they can use in their daily life. This inclusive policy is seeing the light of day with projects like the development of urban farming in containers, professional training for youths and refugees and the co-creation of artistic projects in parks.



Screenshot of the Open Data platform for the city of Amsterdam
© CITY OF AMSTERDAM



Innovation & Data are tools:
It's all about *city challenges*
© CITY OF AMSTERDAM

FOR MORE INFORMATION:

<https://data.amsterdam.nl/#?mpb=topografie&mpz=11&mpv=52.3731081;4.8932945&pgn=home>

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DIGITAL TECHNOLOGY AS THE CORNERSTONE IN BARCELONA'S STRATEGY



Anna Majo Crespo

DIRECTOR OF INNOVATION
FOR THE CITY OF BARCELONA

In the Fab City movement, Barcelona occupies a special place and acts as genuine driving force. It cleverly uses digital technologies in order to transform the city and its relationship with its residents.

Indeed, this technology opens immense possibilities in order to connect citizens and create new governance. Thus, it developed the Decidim platform, which made it possible for Barcelonans to propose, encounter, deliberate and decide on concrete projects. On subjects such as culture, mobility or city planning, this platform made it possible for more than 10,800 proposals to emerge, 500 meetings to be organized and more than 230,000 online interactions.

Digital technology is also essential in the city's desire to develop innovation and urban production, specifically with its iLab system. Barcelona would like to accelerate urban, social and sustainable innovation in order to address central subjects like the role of women in technology, the use of data for urban mobilization, the circular economy and access to affordable housing. For this, it proposes the use of Open

THE FAB CITY PROTOTYPE

Poblenou Neighbourhood, Barcelona

A Fab City is a new urban model for locally productive and globally connected self-sufficient cities that shifts how cities source and use materials by bringing back production to distributed and smaller scales. More production occurs inside the city, neighbourhoods and citizens' homes, along with recycling materials and meeting local needs through local inventiveness. In Barcelona's Poblenou district, this model is being constructed through an evergrowing web of leaders, makerspaces and citizens.



City production in Barcelona

© FAB CITY INITIATIVE

Data, encourages the sustainable and social aspects of the solutions proposed by startups and maximizes relationships between innovative places.

Loyal to its commitment to the Fab City, Barcelona develops, whenever, possible connections between cities and a solid network through digital technologies. Sharing experiences

and good practices is key in order for new urban strategies to emerge in both Catalonia and the rest of the world.

FOR MORE INFORMATION:

<https://ajuntament.barcelona.cat/digital/en/digital-innovation/make-in-bcn/maker-district>

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WORKSHOP

PRODUCTIVE REAL ESTATE AND INDUSTRY OF THE FUTURE WORKSHOP



Carine Saloff-Coste

DIRECTOR OF DRAWING POWER AND EMPLOYMENT

The purpose of this workshop is to examine industrial developments, new trends and methods.

For some time, urban regions considered industry as a burden since it required significant spaces for a polluting activity and, moreover, cities were not considered as competitive as more rural areas. Industry thus saw itself as externalized, i.e. removed from urban centers.

Thanks to the FabCity dynamic, industry is currently experiencing a major turning point, namely, the process of moving back to urban zones for several reasons. On the one hand, industry represents a major step in the innovation process. Indeed, it is essential for companies to have productive capabilities near their decision-making centers. Moreover, proximity makes it possible to better control manufacturing processes and responds to circular economy issues: more local and, if necessary, differentiated production. Lastly, this responds to a high demand from citizens who would like to consume local products.

This new paradigm is therefore desirable and very strongly welcomed by the Parisian public authority, which has implemented everything possible in order to ensure the installation, indeed, the reinstallation, of a cleaner, more collaborative and flexible industry to its region.

PROJECT/1

USINE IO, HELPING CREATORS IN INDUSTRIAL DEVELOPMENT



Agathe Fourquet

Co-FOUNDER OF USINE IO

Key figures

- 4,500 projects financed
- 50 to 100 active projects per month
- A community of more than 10,000 members

As Agathe Fourquet explains, Usine IO is not a Fab Lab, but it is similar to one. Indeed, this is a prototyping workshop meant for industrial startups.

Usine IO provides support to project promoters, by taking part in the creative and testing process with its experts, as well as, thanks to networking with relevant partners, help in launching a micro-industrial production.

The success of this site underlines the vitality of Parisian industrial startups and the interest from large entities in these companies. Usine IO is also considering, in addition to these regular work experiences like testing, iterations and prototyping, a new kind of positioning: the assembly of pre-series.



Vast premises made available to project promoters

© USINE IO/QUENTIN CHEVRIER



USINE IO PROVIDES INVENTORS WITH A VARIETY OF HIGH-TECH EQUIPMENT

© USINE IO

FOR MORE INFORMATION:
<https://www.usine.io/>

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THE MANIFATTURA MILANO, AN APPROACH BASED ON THE CONNECTIONS BETWEEN HUMANS AND TECHNOLOGY



Stefano Micelli

PROFESSOR AT THE UNIVERSITY OF VENICE
AND MILAN CITY HALL COUNCILOR

Chiffres clés

- 36,000 companies related to manufacturing in Milan
- Industry represents 25% of income generated in Milan.
- Milan has the highest number of manufacturing startups in Italy ("The Città dei Makers" – Make in Italy Fondazione, Censis 2016)

The City of Milan invested in Fab Labs and digital production in order to support the development of its SMB network. Currently, Italy has 130 Fab Labs including 10 in Milan. This ecosystem participates in the transmission of new technological practices.

Nevertheless, the role of digital in manufacturing is the subject of debate and there are two opposing visions. One advocates supportability, variety in production, and an understated connection with digital technologies. The second advances the existence of less joyful perspectives: the loss of jobs due to the increase in artificial intelligence, i.e. the replacement of human work by robots. Industry 4.0 arouses fears regarding the digitization of industrial processes.

The Manifattura de Milano, in collaboration with the municipality of Milan, provides a response to this debate by proposing a complementary approach, based on the connections between humans and technology. Its purpose is to create jobs, regenerate neighborhoods in difficulty and promote social cohesion.

Concretely, this is conveyed through the opening of the urban factory "Milano Model," specialized in fashion. The objective is to combine traditional savoir-faire with new technologies. Agile management and open governance, based on a public and private coalition, supports this new innovative project.

PROJECT/3

THE “RE: MODEL” PROJECT EXPLORES THE FUTURE OF INDUSTRIAL COMPANIES



Christian Villum

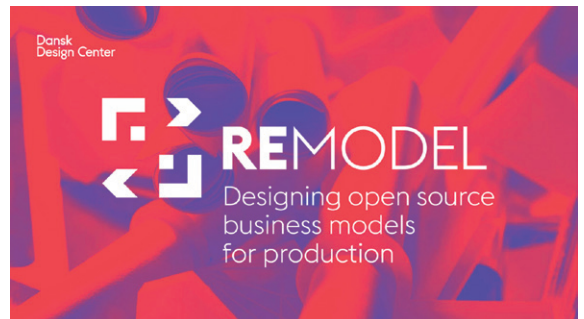
DIGITAL AND PROSPECTIVE DIRECTOR
AT THE DANSK DESIGN CENTER

The “Re:Model” project was initiated as part of the Dansk Design Center’s “Future Fabrication” program. This initiative explores the possibilities that Open Source offers to traditional artisanal and industrial companies, specifically from the perspective of economic viability and business models.

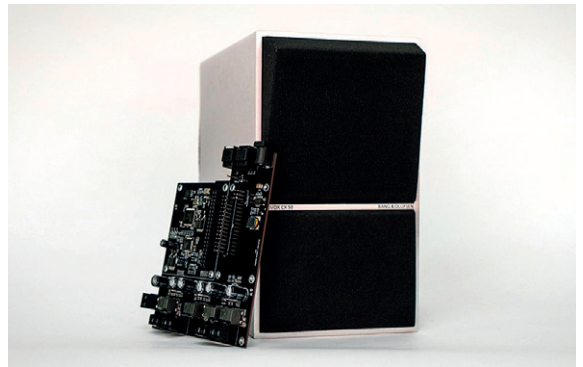
The “Re:Model” project imagines the transfer of the Open Source concept to the world of physical manufacturing at the industrial scale: by communicating the information necessary to understanding how software functions, any person can appropriate the program and provide it with the necessary modifications in order to improve the physical product.

Nevertheless, many issues have emerged such as those related to logistics, the supply of materials and environmental respect. For the moment, Open Source remains marginal in the production of goods, due to the difficulty in finding a viable economic model.

In order to fix this, “Re:Model” brings together experts and companies in order to create solutions and good practices applicable in the industrial sector. The conclusions from this research will be made accessible to as many people as possible around the world so that each person can appropriate Open Source.



© DANSK DESIGN CENTER



Re:Model's objective: make it possible to produce innovative products through Open Source

© DANSK DESIGN CENTER

FOR MORE INFORMATION:

<https://danskdesigncenter.dk/en/about-remodel>

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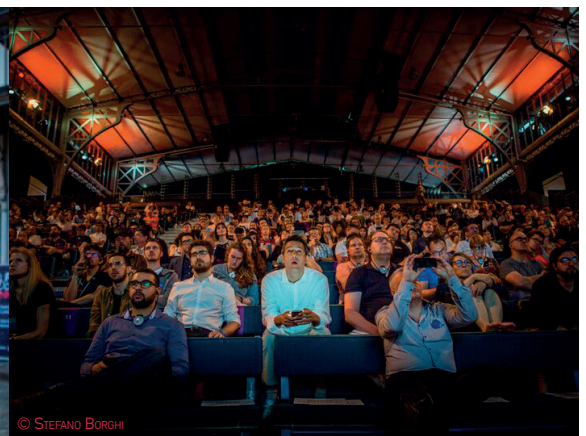


THE FAB CITY CONFERENCE AND CAMPUS

FAB CITY CONFÉRENCE

July 12-13

FOR MORE INFORMATION:
www.fabcity.paris



Over two days, international experts and professionals, coming from various sectors, gathered together at the Grande Halle de la Villette within a reflective and creative approach.

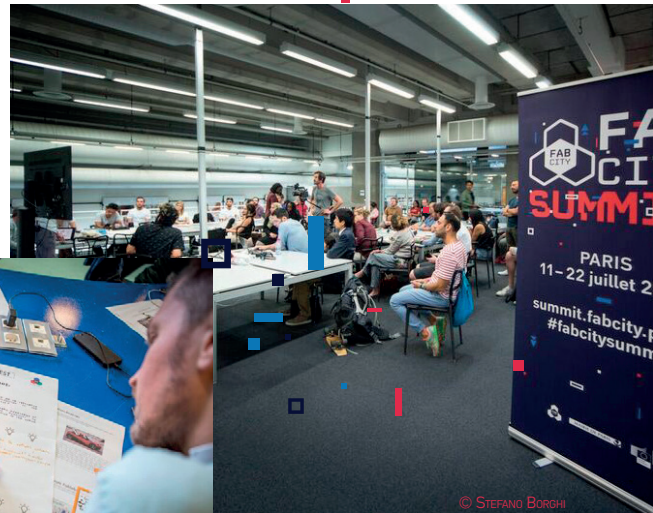
With 900 participants, the first day was dedicated to specialized conferences, based on three major questions:

- Is our current production model reversible?
- Can we breathe life into a new urban paradigm or does it require massive change?
- What are the possible scenarios for our civilization?



From these inspiring discussions, emerged the major challenges necessary for change. First off, the principle of planned obsolescence, which governs current consumer society, must be abandoned in favor of the idea of a resilient city. Moreover, local must be at the service of global, which can be conveyed through the standardization of the bottom up principle. Lastly, the city of tomorrow is possible if it is based on scenarios combining high and low tech.

The day ended with new cities signing up to the FabCity network.



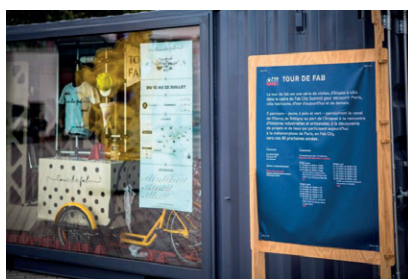
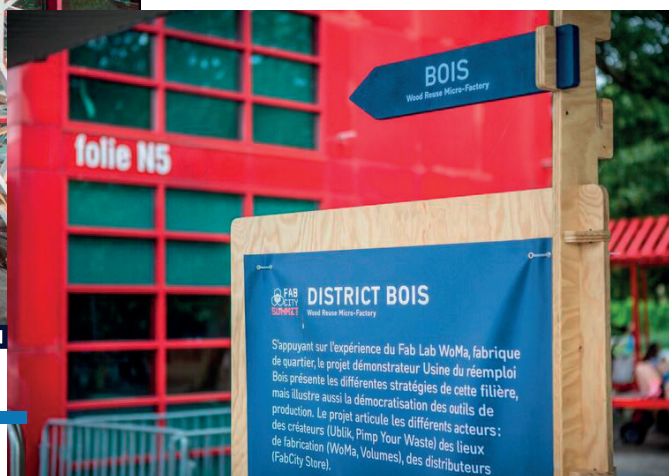
The second day was spent in participatory workshops whose objective was to create discussions. Through subjects as varied as food design, computational design, open source or blockchain, 650 participants were guided by 85 guest speakers in imagining the city of tomorrow. These exchanges promise many future collaborations.

FAB CITY

CAMPUS

FOR MORE INFORMATION:
www.fabcity.paris

The Campus, a temporary event for the greater public took place over ten days at the Parc de la Villette.





For this event, the Parc de la Villette was sectioned off into thematic districts:

- Plastic
- Wood
- Textile
- Urban farming



This event to raise awareness on the Fab City's challenges took place with exhibits, workshops and guided bicycle visits of Productive Paris: The Fab Tour.

LIST OF SPEAKERS (in order of intervention)



Anne HIDALGO
MAYOR OF PARIS



Carlos MOEDAS
COMMISSAIRE EUROPÉEN
À L'INNOVATION



Ada COLAO
MAYOR OF BARCELONA



Jean-Louis MISSIKA
DEPUTY MAYOR
/ CITY OF PARIS



Joost VAN KEULEN
VICE MAYOR
/ CITY OF GRONINGEN



Anna MAJO CRESPO
DIGITAL INNOVATION
DIRECTOR
/ CITY OF BARCELONA



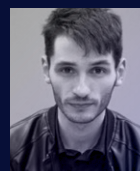
**Valentine GUICHARDAZ-
VERSINI**
ARCHITECT
/ ATELIER RITA



Romain MINOD
Co-FOUNDER
OF COLLECTIF QUATORZE



Stephan SICARS
ENVIRONMENTAL
DIRECTOR / UNIDO



Hugo CHRISTY
MANAGING DIRECTOR
/ REI HABITAT - ReMAKE



Lucie HAMON
Co-FOUNDER
/ BACKACIA



Laura MAGRO
Co-DIRECTOR
/ CEEBIO



Clarisse MERLET
CEO / FAB'BRICK



Célia BLAUDEL
DEPUTY MAYOR
/ CITY OF PARIS



Anni SINNEMAKI
DEPUTY MAYOR
/ CITY OF HELSINKI



Tim CAUFIELD
DIRECTOR OF THE
INNOVATIVE URBAN
ACTION INITIATIVE / FEDER



Jonathan SEBBANE
CEO / SOGARIS



Benjamin SAADA
CEO / EXPLISEAT



Théophile CHAMPAGNAT
CEO / CYCLOPONICS
LA CAVERNE



Olivier FRAISSEIX
DIRECTOR OF THE DEPART-
MENT OF SANITATION AND
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Roxane BILLON-PRUNIER
ENGINEER
/ EAU DE PARIS



Agathe COHEN
ASSISTANT TO THE
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Floor DE JONG
STRATEGIC ADVISOR AND
HEAD OF INTERNATIONAL
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/ CITY OF GRONINGEN



Chris MONAGHAN
Co-FOUNDER AND
DIRECTOR OF INNOVATION
/ METABOLIC



Carine BERNEDE
DIRECTOR OF GREEN SPACES
AND THE ENVIRONMENT
/ CITY OF PARIS



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DELOURME**
CO-FOUNDER
/ CULTIVATE



**Sarah
MSIKA**
CO-FOUNDER
/ CULTIVATE



**Agathe
COUSIN**
PRESIDENT
AND CO-FOUNDER
/ FOOD 2 RUE



**Louise
FOURQUET**
CEO
/ BALUCHON CONSEIL



**Antoine
PLANE**
PROJECT MANAGER
/ CITY OF LILLE



**Blair
EVANS**
DIRECTOR
/ INCITE FOCUS



**Caroline
GRANDJEAN**
DIRECTOR OF ROADS
AND TRANSPORTATION
/ CITY OF PARIS



**Lina
OILINKI**
HEAD INTERNATIONAL
AFFAIRS ADVISOR
/ CITY OF HELSINKI



**Boyd
COHEN**
CO-FOUNDER
/ IoMob



**Philippe
CAUVIN**
DIRECTOR OF PUBLIC
BUILDINGS AND ARCHITECTURE
/ CITY OF PARIS



**Benoît
ROUGELOT**
CO-FOUNDER
AND PRESIDENT
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**Clara
SIMAY**
CO-MANAGER
/ AGENCE GRAND HUIT



**Silvia
DEVESCOVI**
IN CHARGE OF PILOTING
THE CYCLE TERRE PROJECT
/ VILLE DE SEVRAN



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MARKOPOULOU**
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ARCHITECTURE OF CATALONIA



**Claude
PRALIAUD**
DIRECTOR OF CITY PLANNING
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**Paul
CITRON**
DEVELOPMENT DIRECTOR
/ PATEAU URBAIN



**William
DUFOURCQ**
DIRECTOR OF ORGANIZATION
/ AUREORE



**Gerard
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**Carine
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**Christian
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