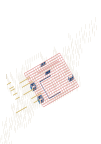


Future Makers' District

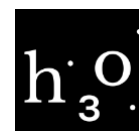
Summary of SMC20+European15 sessions



studio
Iza
Słodka



In collaboration and
thanks to the support of:



Colophon

Izabela Słodka – studio Iza Słodka

www.izaslodka.com

contact@izaslodka.com

0614630687

Andrea Bit – Dividual

Maciej Wiczorkowski – Dividual

www.dividual.eu

office@dividual.eu

0638338670

15.12.2020, Rotterdam

Table of contents:

1. Introduction	1
2. List of guests	2
3. Coalition of pioneers	3
4. Spatial ideas for urban manufacturing	11
5. Strategy for the future	19
6. Sources	23

Introduction

The Stadmakerscongres, organized by AIR Rotterdam, offers a unique opportunity to gather experts from the Netherlands and abroad to discuss relevant issues and brainstorm together about possible outcomes for Rotterdam. Part of this year's program, which is taking place mostly virtually, was organized in collaboration with the European 15 winners resulting in a series of webinars related to the competition sites.

We were (Studio Iza Slodka with collaboration from Dividual office) responsible for setting up a zoom-in session on the 25th of November: Mixed-use typologies for urban manufacturing. Then, on the 27th of November, we followed with a zoom-out session about Rotterdam West and 3 competition sites in a broader metropolitan context of Rotterdam, organized together with COFO architects from Rotterdam and h3o architects from Barcelona. Martine Zoeteman from AIR Rotterdam helped with coordinating and organizing both sessions.

For the zoom-in session we selected three case studies of realized buildings that combine living and working, including urban manufacturing: Pullens Estate in London, IBeB Building and Lobe Block in Berlin. By looking at the micro-environment of each building we were trying to find out what conditions were met to ensure that these developments were possible and successful - on both social and spatial levels. Architectural typologies of these case studies

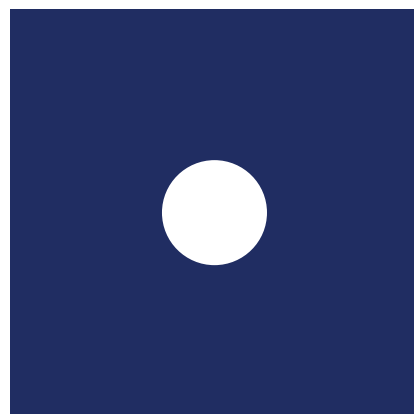
revealed innovative and experimental ideas that could serve as an inspiration for our local context. Lessons about relations happening on the ground floor, between buildings and in outdoor spaces with diverse character and purpose seemed to be especially valuable. Analysing these examples led to a series of interesting questions about whether these relations could be achieved in the higher density needed in M4H.

In contrast, the Zoom-out session offered a wider and more strategic perspective on the three European sites in Rotterdam West. During the webinar we brainstormed together about how they can successfully develop over time in harmony with each other and the rest of the city. Interestingly, many of the identified ambitions and strategies overlap with the ones that were described during the zoom-in session two days before.

Conclusions gathered during the sessions reinforced the idea that combining two approaches: learning from the case of singular buildings and from the perspective of the whole city, inspire a productive discussion about the future of the M4H area, while at the same time provide insights into transformation of post industrial sites in general.



Zoom in - learning from the environment of one single building and its community.



Zoom out - learning from the metropolitan scale of the city, its ambitions and future goals.

List of guests:

ZOOM IN: 25th of November 2020 | Mixed-use typologies for urban manufacturing

Experts and guests:

Eireen Schreurs	Educator and researcher at TU Delft / KU Leuven, co-founder of suboffice, initiator of the project Werkhuis, co-author of DASH15 “Home work city” and book “New Craft School”.
Christoph Heinemann	Co-founder of ifau (Institut für angewandte Urbanistik, Institute for applied urbanism), Professor at HafenCity Universität Hamburg.
Ana Zatezalo Schenk	Co-founder of Lobe M and manager / tenant at Lobe Block, Founder of Sinestezia design studio, Lecturer at TU Berlin.
Bas van den Berg	Co-founder of Keilewerf and De Kroon in M4H.
Birgit Hausleitner	Lecturer and researcher at TU Delft, co-author of “Cities of Making” and “Liveable Manufacturing” research projects, contributor to “Guiding Principles Metro Mix” report.
Monica Adams	Studio Adams, Keilecollectief
Annette Matthiessen	Senior urban designer at Gemeente Rotterdam
Joeroen Bleijs	Urban planner at Gemeente Rotterdam

ZOOM OUT: 27th of November 2020 | Rotterdam West

Experts and guests:

Lisette Groen	Manager of Delfshaven and Merwe4haven at the Municipality of Rotterdam
Annette Matthiessen	Senior urban designer at Gemeente Rotterdam
Mariet Schoenmakers	Urban designer and planner
Gerben in 't Hout	Asset Manager Woonstad
Robbert de Vrieze	Curator 'Energy transition as leverage' IABR
Folkert van Hagen	Owner Group A, Keilecollectief
Monica Adams	Studio Adams, Keilecollectief
Edward van Dongen	Hoofd Initiatief & Concept/ Concept developer at ERA Contour B.V.
Christian Cooman	Commercial regional manager of Heijmans Vastgoed

Coalition of pioneers

M4H is an active site in transformation – rich with both historical buildings and temporary structures. The new development will need to deal with this tabula scripta. Various users and activities found room for themselves in many different indoor and outdoor spaces of the M4H. Already now, an active community creates an interesting part of the city that attracts many visitors and new participants. It is a shared ambition of the municipality, developers and pioneers present on the site to develop strategies and designs which would allow organic integration of the vibrant makers community into the new developments. The question is how can we ensure that happens?

During the zoom-in webinar Bas van den Berg, co-founder of Keilewerf workshop located in the M4H area, described the makers community – their activities, ambitions and worries. Undoubtedly one of their top concerns is insecurity: that without concrete steps and radical solutions, the built-up potential of an inclusive makers district won't be possible to retain.

Accommodating the existing community seems like a challenge, however it can be also a great

opportunity to create something unique - an alliance of shared interests and goals. In "Guiding Principles Metro Mix" one of the advises defined by College van Rijksadviseurs is to "steer towards coalitions with attention to local support". By giving different forms of participation an explicit role in the process, new entrepreneurial associations and coalitions can emerge. These are necessary for achieving more complex tasks like steering towards a sustainable, circular economy or protecting vulnerable functions. Encouraging or (in case of M4H) preserving these coalitions can help with achieving common goals and have a positive spin-off effect for the new developments.

Mixed use areas should be inclusive and socio-economically diverse neighborhoods with space for different types of employment and educational levels. It is therefore crucial to protect manufacturing work and niche employment, especially when it contributes positively to the area profile and adds value to its innovative strength. In "Metro Mix" research they propose introducing work associations (similar to the housing association) that could be aimed at creating subsidized business premises for certain economic activities of social or



The Keilewerf is a makers community already active in M4H. (Foto: © Bart Hoogveld featured on Keilewerf website) Source: <http://www.keilewerf.nl> [Accessed 12 December 2020].



The Keilepand is a former industrial building which now hosts creative offices and exhibition spaces. In 2019 the tenants bought the building. (Foto: © Jan de Groen featured on IABR website) Source: <https://iabr.nl/en/nieuws/verhuizing> [Accessed 12 December 2020].

economic value. That means that even starters and placemakers present from the very beginning could be retained in the area. They are, in fact, feeding the employment growth and creating a distinctive character of the site – something worth keeping.

The aspect of protecting vulnerabilities was brought up during the zoom-in session by architect, urbanist and researcher Birgit Hausleitner. She noted that often, without proper curating, working units disappear.

“If you don't have a curator on site very often the project does not deliver the work component in the end - people start to live in the area and occupy the working units as well.” Birgit Hausleitner

The importance of the role of curator was brought up on the scale of one building, but also in the whole area. It led to further debate on how to create conditions for living and working and what could be the role of public authorities in this process. In the “Foundries of the Future” produced by the “Cities of Making” project team (including Birgit Hausleitner), the role of the curator of the area is described as someone who “could refer to the area coordinator, community manager, development advisor, city architect, facilitator or the development agency.” The document however, also talks about public authorities and their important role in

developing clear planning visions, supporting business networks and protecting land against unnecessary speculation.

“Public authorities can act as curators, identifying collective challenges, setting ambitions, defining long term planning, developing brave projects, connecting partners, funding pathways for innovation and capturing the benefits of keeping manufacturers in cities.”
(Foundries of the future, pg11)

Public authorities play an important role in retaining makers in the city and assuring stable rental conditions for example through land ownership. Long-term guarantees are crucial for manufacturers in order to secure their investments in installing specialized machines, training staff and expanding local networks.

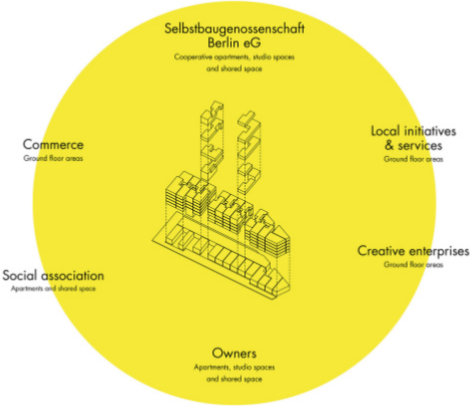
Interestingly enough, advice found in research documents on the subject is realized in presented projects, from which we know it works. Creating a framework for mixed use inclusive and affordable projects by public authorities, curating and managing the way in which the buildings function, protecting vulnerable programs by creating associations – These are some of the characteristics of the projects that were used as case studies during the zoom-in session. During the event we had a chance to hear first hand from the architects,

buildings managers and researchers about the origins of the projects, their mixed use environments, specific problems and the impact on the surrounding area.

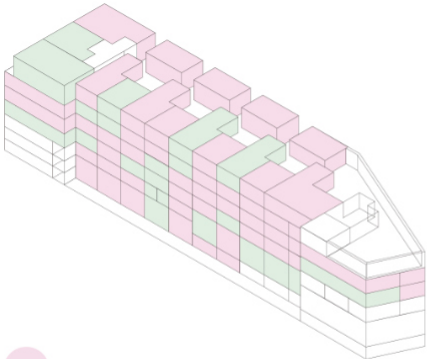
IBeB

One of these projects was Residential and Studio Building at the Former Berlin Flower Market (Integratives Bauprojekt am ehemaligen Blumengroßmarkt: IBeB) by ifau (Institut für angewandte Urbanistik, Institute for applied urbanism) and Heide & von Beckerath. Our invited guest was Christoph Heinemann – co-founder of ifau, architect and a professor at HafenCity Universität Hamburg.

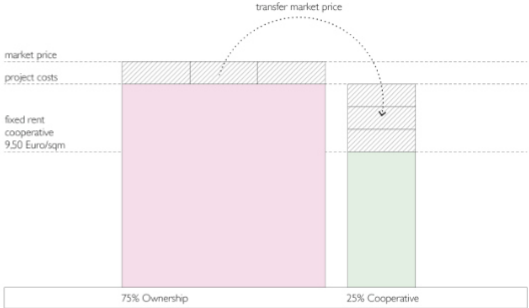
IBeB is a cooperative mixed use project located in the historic Südliche Friedrichstadt in Berlin’s Kreuzberg district on the site of the former Berlin Flower Market. All the newly developed buildings around the former market hall are projects developed in collaboration with local initiatives involved in different social issues. The plots surrounding the market were first intended to be sold to the highest bidder. Starting from an already existing initiative to use the market building as a space for modern art, the resistance towards traditional ways of developing a project occurred quite quickly and, together with the support of the local community and the management of the berlin markets (also responsible for the flower market hall), evolved into the idea of an alternative solution. Local authorities decided to replace the tender procedure for the highest bidder with a concept competition, where the group with the best idea would be able to develop the project. Ifau, together with Heide & von Beckerath and



Use case diagram of the IbeB project in Berlin by Ifau and Heide von Beckerath. (Diagram: © Ifau and Heide & von Beckerath featured on the EUMiesaward website) Source: <https://miesarch.com/work/3950> [Accessed 12 December 2020].



- Private Ownership
- Cooperative



Cross-subsidisation diagram of the IbeB project in Berlin by Ifau and Heide von Beckerath. (Diagram: © Ifau and Heide & von Beckerath featured on the EUMiesaward website) Source: <https://miesarch.com/work/3950> [Accessed 12 December 2020].



Shared rooftop terrace on top of the IBeB project in Berlin by Ifau and Heide von Beckerath. (Foto: © Andrew Alberts featured on Metropolismag website) Source: <https://www.metropolismag.com/architecture/ibeb-cooperative-housing-berlin-ifau-heide-von-beckerath/pic/52379/> [Accessed 12 December 2020].

Selbstbaugenossenschaft Berlin (housing cooperative rooted in the resistance of the 70's) won the competition and started a participatory process with future tenants of the building. A series of workshops in all stages of the project allowed people to make decisions and have an influence on the design.

“You can say people inhabit the building before they really inhabit it. It has a really strong impact on the use.” Christoph Heinemann, ifau

This way of involving people early on allowed for certain design decisions that would be otherwise impossible, like introducing outdoor galleries or shared inner street-corridor. Having a freedom of doing things differently worked in advantage of mixing various functions of the building and connecting its future residents.

“You can really enhance the quality by giving the responsibility to the final users.” Christoph Heinemann, ifau

Buying the land at a lower than the market price allowed for a buffer in a financing of the building. Part of the apartments was sold at the market price and the margin was used by the housing cooperative to subsidise units with the fixed rent price. The arrangement was clear from the beginning and a premise to participate in the

project. This being at the base of the deal with the city, did not lead to further friction.

Affordability was an important aspect in designing IBeB. The building is designed with cost-efficient prefabricated components and it follows energy efficiency standards. Architects thought along with the future users on how to create affordable units for living and working. For example they designed spaces in the workshops that wouldn't be counted in the overall square meters calculation (due to the lower height) and therefore included in the rent price but still would be very usable for work and storage — you rent or buy 55 sqm but you can use 75 sqm.

Christoph concluded that the reason this extraordinary building could be created was the decision of involving a mix of people in the project, giving them control over a highly transparent development process. Allowing for an alternative process to happen led to achieving higher quality of the project and its affordability.

“The start is to take it out of the market (...) and to allow for cooperative creation with clearly stated specific common goals. This will lead to complexity and is not contradicting to build along building laws and simple standards.” Christoph Heinemann, ifau

Lobe Block

Another project in Berlin — Lobe Block located on a former scrapyard by the railway track in the district of Berlin-Wedding was created in a different way. The building was initiated by an individual with a vision, who gathered a coalition of tenants to win investor support. Its initiator — Olivia Reynolds found enthusiastic architects: Brandlhuber + Emde, Burlon / Muck Petzet to help with realizing her vision. They argued that rising property prices and construction costs were forcing architects to create smaller and less social spaces and convinced Olivia to build a mixed-use building that could offer high-quality spaces potentially benefiting the neighbourhood.

The shared vision generated the main goals of the project: to achieve the greatest possible overlap between ecology, economy and social affairs and to create a building that would be robust, durable and resilient. Taking advantage of the project site and strong integration in the local area resulted in creating an interesting typology with many outdoor spaces and establishing cooperations with the neighbourhood initiatives early in the process. Moreover, the Lobe Block became integrated in the network of local geothermal energy.

The cost of the building was kept low thanks to the rough materials and finishes: concrete shell

facade and drywalls to separate the units with basic finishing standards. The optional changes and extensions were taken into account during the design. In fact, unclear regulations and conflicting zoning plans for the area resulted in creating a project that from the beginning was thought of as adaptable to different uses.

The long-term relationships with tenants are an important part of the project and a foundation for creating a strong community - stable contracts and rents stimulate engagement of the renters. Potential future users applied before the building was finished to sign rental contracts varying between 8 and 12 years. The vision of the owner and building's special character required developing a mutual understanding and building a community with similar mindsets.

“It is not only about creating a house and filling it with people who will pay rent. It has really to create an environment which is bigger than the sum of its parts” Elke Falat, co-owner of Lobe Block

Ana Zatezalo Schenk — a tenant and a manager of the building joined the zoom-in session to explain more in detail how day-to-day activities look like at the Lobe Block. From her story it became even more evident that the building works as an open community hub — connecting its users and neighbours. At the Lobe Block



The Lobe Block terrace house in Berlin by the architects Brandlhuber + Emde, Burlon / Muck Petzet Architects combines various uses under one roof. (Foto: © David von Becker, im Rahmen des ARCH+ Features 78: Terrassenhaus Berlin) Source: <https://www.stuttgarter-nachrichten.de/media.media.654926c3-9743-448c-a36c-4c421196059a.original1024.jpg> [Accessed 12 December 2020].

people working in the nearby garden can use the building's facilities, tenants take shifts to water plants on the terraces and the hausmeister watches over many dogs running around the building. Activities like growing vegetables, bee-keeping, practicing yoga, watching films in an outdoor cinema or occasional parties on the roof terrace are part of the Lobe Block routine and while stimulating learning, exchange and experiment they help build a strong community of pioneers.

Although these activities are part of the building's character, they require careful and constant management and curating. Ana Zatezalo Schenk takes an active role in this process and during the webinar she could describe first hand the challenges of the project: from cleaning dogs poops' from the shared terrace to teenagers drinking on the outdoor steps. The balance is, however, still positive – with management processes that allow people to discuss the issues and with a group of open-minded and cooperative tenants it is easy to grasp the benefits of this unique community-hub. The strength of the people's coalition was evident also this year – during the coronavirus pandemic some studios struggled and others came forward with help. For example with the help of the neighbours yoga studio was allowed to use shared outdoor terraces to organize its lessons and could create income during the lockdown.

Lobe Block allows its tenants to extend their activities outside of their studios and represent themselves and their work in the city. This element of recognition is really important if the aim is to create a mixed-use neighbourhood. Makers and their activities, typically hidden from the city's life, should become part of the daily routine again, visible in public spaces. This helps not only with creating a sense of ownership and a feeling of being a part of a community but also provides marketing opportunities for makers.

Pullens Estate

Pullens Estate – a historical example of mixed-use development tackles the same issues, allowing workshops to be visible in the urban fabric of London by creating working yards on the other side of the houses' entrances. The Pullens Buildings, built in the late 19th century were an experiment – a new typology for living and working. Amongst many similar projects only a few survived and, in case of Pullens, it happened thanks to the active group of squatters. By protesting the eviction, they managed to keep the rental prices low and in 1983 formed Pullens Arts Businesses Association tasked with representing inhabitants,



The Lobe Block terrace house in Berlin by the architects Brandlhuber + Emde, Burlon / Muck Petzet (Foto: © David von Becker), Source: <https://www.metalocus.es/en/news/terrassenhaus-berlin-brandlhuber-emde-burlon-muck-petzet> [Accessed 12 December 2020].

fighting for appropriate work conditions and helping the Pullens community thrive.

Currently the ownership structure of the buildings is mixed and consists of partially private lease and partially social housing ownership. Over the years the residents occupying the buildings changed from brushmakers, ship-fans makers and x-ray manufacturers into furniture makers, photographers, graphic designers, writers, ceramists and more. Houses and workshops once occupied jointly, now (in most of the cases) are rented and owned independently from each other.

Eireen Schreurs, an architect, educator and researcher, explained how, to this day, the strong feeling of community is present at the Pullens Estate. Their association is active and supports its artists and makers through their website, social media and many events including open days. The strength of the community builds mutual support – a crucial aspect for starting business, makers, craftsmen and artists.

“It is really important that as an inhabitant you see the gain of living in such a collective way.” Eireen Schreurs

Questions and conclusions

Studied examples presented inspiring ways in which architecture can include and accommodate existing users, contribute to building a strong community and provide affordable spaces for living and working. All case studies clearly displayed a need for experiment on the level of developing the project as well as spatial solutions. Non-standard and innovative qualities of buildings presented during the session have power to consolidate the community around them and to add a positive element to their neighbourhoods. With new solutions they created spaces that could host different functions, creating flexible and resilient architecture.

During both zoom-in and zoom-out session of Stadmakerscongres the common notion was that innovative pioneering projects help to achieve the shared ambition for the area, especially when they are part of re-development strategy early on. Making space and a framework for them is a difficult and political process, but it is crucial for the success and the livelihood of the area. The importance of this step is also described in the “Metro Mix” with the advice “Business case for temporality” – it argues that while some programs will match only the pioneering phase



Pullens Yards Open Weekend, Source: <https://www.linkedin.com/pulse/so-youve-moved-london-eh-part-ii-michael-ambjorn/> [Accessed 12 December 2020].



View into one of the courtyards – space for encounter for makers and inhabitants. (Drawing: © Izabela Slodka)

of the development, other ones can continue to grow in the intended economy. It is beneficial to protect and subsidize initiatives which create an added value to the area but are unable to match the commercial rental and purchase prices.

The discussion about the presented case studies raised many questions. Does the density and scale of planned new developments in the M4H allow for creating projects like this? Can we achieve a similar effect without taking plots out of the market (which is not always possible)? How can we better understand and describe the contribution of pioneers in the creating safe, exciting, thriving and inclusive neighbourhood? What could be the role of the municipality in creating framework and conditions for preserving existing pioneering communities and accommodating new ones?

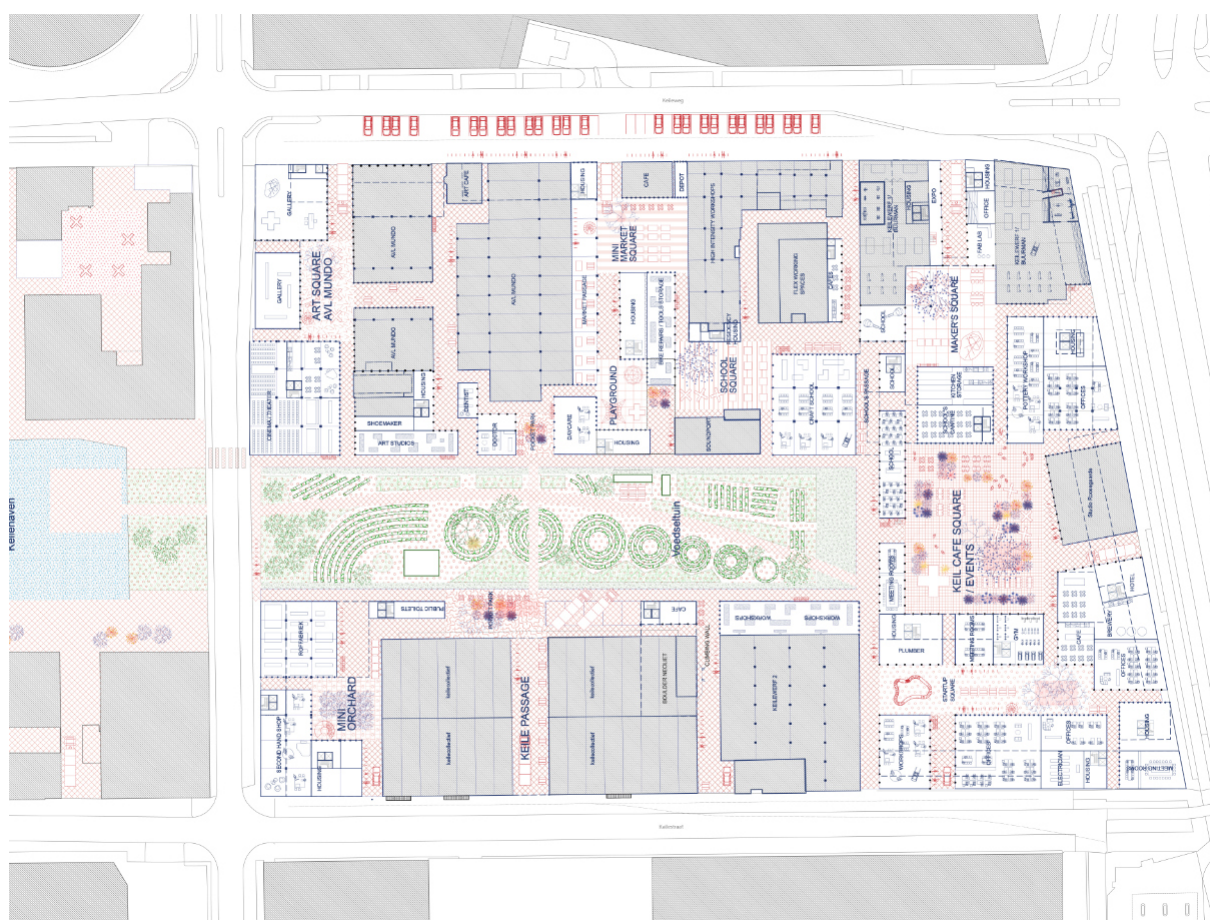
Of course answering these questions requires further studies and none of the presented examples can be implemented directly into the context of M4H, however they inspire solutions while delivering perspective of built projects which faced similar questions. Of course, the experimental character of the Innovation District

doesn't necessarily mean that all the projects will be experimental, however finding space for projects developed in an alternative way and providing affordable spaces for living and working, while at the same time being innovative spatially, will be beneficial for development of the area. These pioneering projects could become catalysts for community building, sharing, experiment and learning. They will attract more diverse target groups than standard developments and therefore contribute to creating an inclusive neighbourhood. Presented buildings prove that strong bonds between tenants assure that many issues can be solved on the community level. It is easy to imagine that even few of these projects have the potential to change dynamics of the neighbourhoods turning them into more connected, healthy and circular places.

Spatial ideas for urban manufacturing

Affordability played an important role in creating vibrant and inclusive communities in the studied buildings. While considering alternative ways of financing and managing a project, it was also interesting to examine how their spatial solutions, relations with the outdoor areas and (sometimes blurred) division of the public and private spaces helped with combining different functions. Previously mentioned features like big shared terraces and yards offered extra space for social interactions and community building, while their experimental typologies encouraged new ways of working and living, attracting people with similar mindsets and ideas. During the zoom-in session experts took time to elaborate further on spatial solutions applied in presented case studies. Looking for inspirations for the future Makers' District, the focus of the discussion was on the design solutions that would enable the combination of living and manufacturing.

Some of the ideas, on an architectural and urban level, can be found among the guiding principles of the "Metro Mix" publication. Authors of the advice put emphasis on a diversity in plot sizes and the way in which it facilitates accommodation of different functions and users. Similar aspects are brought up by the research project "Cities of Making" both in relation to the size of building plots and individual rentable units. For manufacturers it is especially important to be able to expand or shrink without having to move their workshops. This requirement can be fulfilled in many ways – for example by including different types of studios in one building or by creating space flexible enough to host different potential uses – an oversized, adaptable space with special character, providing good spatial qualities for manufacturers. Some of these rooms can be multifunctional or shared between different functions.



Masterplan of Makers Maze with courtyards for making and living. (Drawing: © Izabela Slodka)

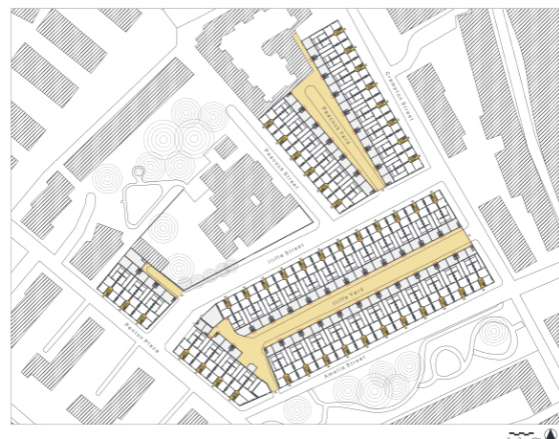


Entrance gate of Pullens Estate, in London, between yard walls. (Foto: © Paul Kuitenbrouwer featured on *Dash15 Home Work City* magazine pp.88)

Both “Metro Mix” and “Cities of Making” consider various ways of organizing living and making on a level of one building and the neighbourhood. Researchers argue that some forms of manufacturing can be gathered around high streets, taking advantage of high concentrations of mixed use programs, pedestrian flows and visibility. Being better connected to the neighbourhood improves exposure to potential clients. In other cases, it can be organized around courtyards inside blocks. Such a solution allows them to make more noise, organize logistics safely and use additional outdoor space for storing materials. In the high density areas, yards with space for turning and parking can help with logistics of loading and unloading without causing too much disruption for the residents.

Architectural solutions like large openings for deliveries and goods lifts allow for horizontal and vertical accessibility, enabling potential intensification of the manufacturing and flexible use of space. It is especially interesting to look at the multi-level mixing of different uses, creating visual relationships between different programs and various types of outdoor spaces. These solutions often require new ways of defining public, collective and private spaces.

“Collective space is a really important ordering device which can sometimes blur the boundary between spaces for living and working and sometimes quite radically take it apart.” Eireen Schreurs



Ground floor plan of Pullens Estate, in London. In yellow the communal working yard. (Foto: © Paul Kuitenbrouwer featured on *Dash15 Home Work City* magazine pp.84)

Pullens Estate

Pullens Estate is a good example of a project where the outdoor space is used as an ordering device around different functions. Boundaries between public and private are clear and are a part of the specific urban design. Entrances to the housing units are located on public streets and have formal and representative character, while workshops are accessible from the collective inner-streets / yards. These big, communal spaces are shielded from the public eye with the gates that are open during the day and closed for the nights. This simple intervention allows for spaces that are vibrant, unique and can host many activities and that otherwise wouldn't take place in a regular street. The gates look and function as an extension of the buildings rather than added fences, creating well-defined and formal entrances to the workshop area.

This division of the public and collective allows for different forms of expressions and



Continuous shared roof terrace on the second floor of Pullens Estate, in London. (Foto: © Paul Kuitenbrouwer featured on *Dash15 home work city* magazine pp.89)

representations. In Pullens Estate, inner yards don't function as a backside of the street but as a heart of the development. There the residents and tenants proudly display their work and take advantage of the collectiveness it offers.

"[In Pullens Estate] we should not talk about "the back side". It is not a back side, where we cluster all the messiness, but it is a complementary side to the main street, outside the block. It gives a completely different atmosphere, where the making can take place." Birgit Hausleitner

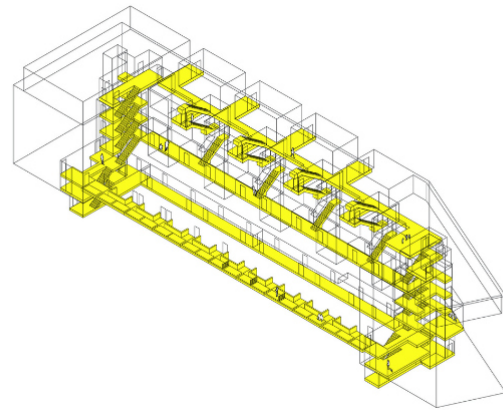
On the corners of the buildings, right where you enter the yards, there are shops and cafes. They fulfill a more extraverted function of the project – inviting one to stay, interact and view the products created in the Pullens' workshops.

Various typological solutions help to organise living and working functions in order to avoid disturbance. Small apartments (of around 50 m²) are separated from the workshops with a buffer consisting of a kitchen with a storage space and a small courtyard to improve lighting conditions. The houses were originally occupied together with the workshop, establishing a strong connection between them. However, currently, they often have separate owners and work independently. It is an interesting change in the usage of this typology, which proves its flexibility. Nowadays, many of the workshop rooms occupy double space by joining (horizontally or vertically) two adjacent rooms.

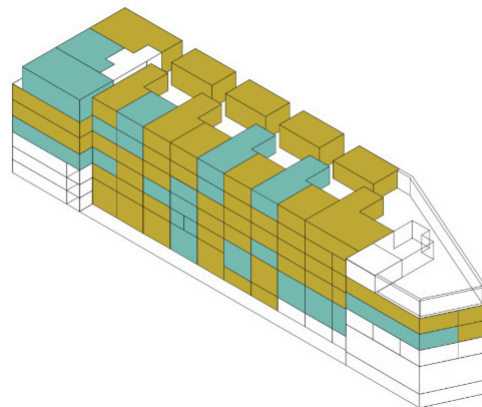
Back-to-back placement of housing and workshops and their two-story difference in height create opportunity for all sorts of outdoor spaces: private roof terraces, collective shared rooftops on top of the workshops, small inner courtyards and of course collective yards. They all provide different qualities and ensure different types of collectiveness – from the one where you are a worker to one where you are an inhabitant.

"The outside spaces provide an important outlet and a meeting point, in order not to be alone all the time." Eireen Schreurs

As mentioned before, the typology, experimental character of the project and generosity of shared outdoor spaces contribute to creating a strong community of people with similar mindset and ideas. It also introduces various solutions to enable combining different activities. It accommodates urban manufacturing not by hiding it, but by integrating it into the urban fabric of the area and highlighting its specific character and activities.



Building volume and access structure diagram of the IbeB project in Berlin by Ifau and Heide von Beckerath. (Diagram: © Ifau and Heide & von Beckerath featured on the EUMiesaward website) Source: <https://miesarch.com/work/3950> [Accessed 12 December 2020].



Cross-financing of the IbeB project in Berlin by Ifau and Heide von Beckerath. Blue: Cooperative. Green: Property. (Diagram: © Ifau and Heide & von Beckerath featured on the Hochparterre website) Source: <https://www.hochparterre.ch/nachrichten/architektur/blog/post/detail/ein-kessel-buntes/1551281802/> [Accessed 12 December 2020].

IBeB

This diversity of spatial solutions is also visible in the more recent project that combines working and living – IBeB in Berlin. The building consists of many different apartments and studios with various heights, sizes and layouts – the floor plans were designed with the users on the base of common standards defined in collaboration with the future users during the design development stage. The building, while occupying maximum available volume on the site, provides a series of shared indoor and outdoor areas for its tenants.

On the southside of the ground floor double height ateliers are accessed from the outside. A collective street along the facade allows for further access and separate additional studios at mezzanine level. This spatial solution creates on one hand a dynamic exchange between private and public and on the other hand adds a shared space for the makers. On the north side, the level of the floor of the ateliers matches the level of the mezzanine from the south side and therefore allows for multiple connections between them.

By using only two staircases in the building, architects minimized space needed for the vertical circulation to create a quality interior space on the 1st level: a corridor, providing access to studios and apartments. Generous inner-street leads to small flats with big balconies on the south side of the building and to duplex apartments with entrances on both levels on the north side. This configuration makes it easy to divide living and working, dedicating one level and entrance to work activities and receiving clients, and the other one to housing. Connecting the corridor to five atriums provided additional ambient light to apartments and circulation spaces. Additionally, the availability of the light and flexible range of ventilation possibilities allow numerous spatial combinations.

On the fourth level there is an outdoor rooftop-street providing access to the levels three and four and to separate ateliers. It leads to a big shared rooftop, another generous collective space for the inhabitants of the building.

Thanks to the smart access structure inside the building, it was possible to create various types of working and living units. Different functions are interwoven inside the building and can also adjust to the changing demands. Most of the apartments' floor plans, as well as communal facilities, were designed in cooperation with future residents.



One of the studios in IbeB building. (Photo: © Andrew Alberts) Source: <https://www.archdaily.com/941785/residential-and-studio-building-at-the-former-berlin-flower-market-ibeb-ifau-plus-heide-and-von-beckerath> [Accessed 12 December 2020].



Sunken street for the workshops. (Photo: © Andrew Alberts) Source: <https://www.archdaily.com/941785/residential-and-studio-building-at-the-former-berlin-flower-market-ibeb-ifau-plus-heide-and-von-beckerath> [Accessed 12 December 2020].

visitors and neighbours to walk around the building. The front facade doesn't cut straight to the ground, but instead creates steps that define an outdoor square in front of the building. By introducing this solution, architects tried to create a private development that established an interesting and ambiguous relation with the public street.

“There shouldn't be any private project that is not, on the other hand, dealing with the public.” Arno Brandlhuber, Brandlhuber + Emde, Burlon

Perhaps the most important feature of the building are extensive shared terraces. They add a generous collective area for the tenants and an extension of the working units. Artists and makers display their work there, store materials, mark their zones by placing outdoor furniture and plants. For the owner of the building it was important to create a generous outside space, so people wouldn't feel enclosed in the interiors. The notion of freedom and exchange are important principles of the project.

Questions and conclusions

Blurring the boundaries between public and private might work well in the case of Lobe Block, but this idea raises a lot of questions, especially in context of the future development of M4H. During the zoom-in session, Annette Matthiessen from Gemeente Rotterdam noted that it would be difficult to imagine scaling these ideas as a principle for bigger-scale developments. Looking at the spatial solutions enabling mixed-use developments in Pullens Estate, IBeB and Lobe Block one might wonder if they could solve the issues that come with more impactful manufacturing and how to translate them into higher density areas.

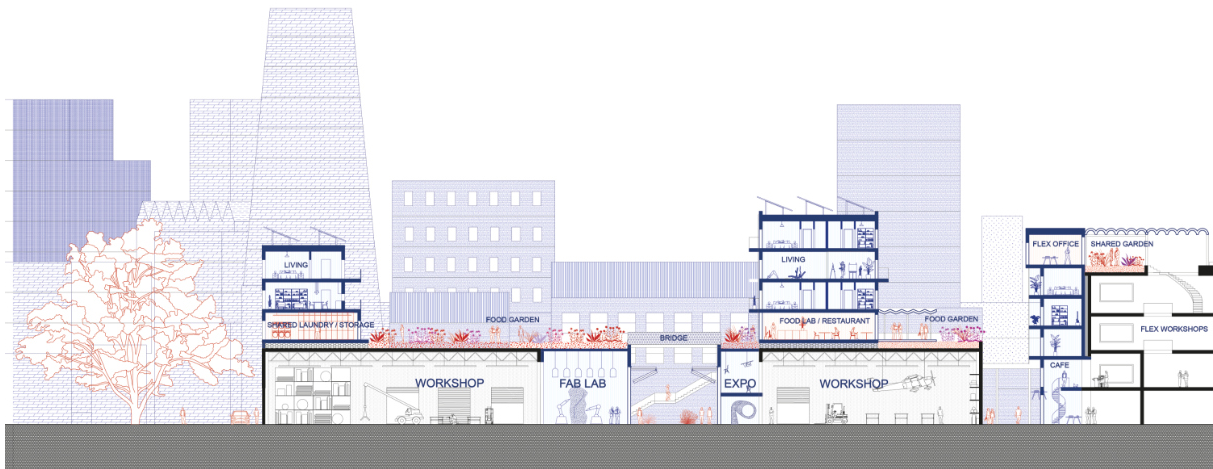
With critical analysis of the presented examples, we can find multiple spatial ideas that can inspire future architecture in M4H. It seems especially true when we look at the case studies in the context of the relationship between a plinth of a building and the outdoor space. It is noticeable that all of the above projects use outdoor space as an ordering tool to define the relationship between private and public. Moreover, they all add generous areas devoted for collective use. These shared spaces contribute to creating a social cohesion between users, while offering room for interactions.

“There is no ideal work - live project. They vary in multiple ways.” Eireen Schreurs

Strong connection to the outside of the building, light and ventilation conditions, accessibility and



The public staircase of Lobe Block terrace house in Berlin by the architects Brandlhuber + Emde, Burlon / Muck Petzet Architects, connecting the outdoor spaces. (foto: © Anemone Schütz, featured on AnneliWest website) Source: <https://www.anneliwest.de/artikel/lobe-block> [Accessed 12 December 2020].



The division of functions in Makers Maze: working spaces on the ground floor, communal living spaces as a sound buffer on the first level rooftop, living units on the higher levels. (Drawing: © Izabela Slodka)

flexibility of units within the building are some of the tools that are crucial for urban manufacturing. Projects dedicated to urban production strive for a balance between formal and informal qualities, offering representation for the makers, and at the same time enough freedom not to restrain their activities and creativity.

“We are focusing on how to introduce people [with smaller budgets] in the M4H and that combines well with new innovative housing forms. What we see right now is that the companies who want to develop M4H introduce so many different concepts and the concepts are broader because they don’t only focus on the housing but also on the plinth. They really want to add functions that bring people together and create community. I think this is the key factor to attract the other neighbors in M4H.” Lisette Groen

Strategy for the future

Cost, social cohesion and mixed use functions are aspects which require addressing in the early stages of the planning as they influence all scales of the project. The current ambitions of Rotterdam, among other places, to become a compact city is well justified from the standpoint of energy-efficiency (shared energy), walkability (shorter commute distances) and circularity (new circular flows possible in the scale of neighbourhood). It is also a factor in creating affordable developments, following principles of equal access to high-quality spaces and services.

“(…) the close proximity is the precondition for many other benefits leading to affordability. Cohabiting space correlates with more equitable access to the city. Everyone wants to be near the stuff they need.” John Doyle and Graham Crist, *Affording Tightness*

While it is difficult to assure the success of mixed-use developments, it is possible to define some strategies to stimulate its diversity and liveness. Many of the guiding principles provided by the authors of “Metro Mix” focus on creating enough space in the future mixed use areas for different users – not only by mixing different

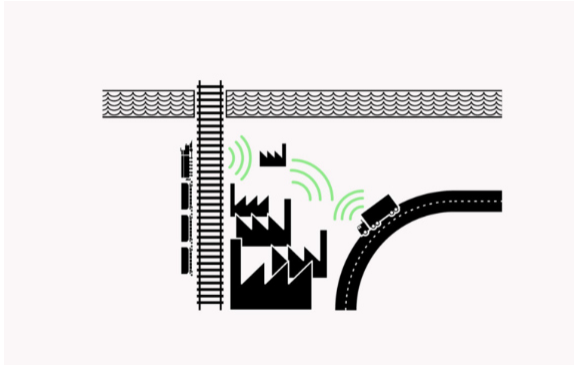
programs together but also providing possibilities of various ownerships and development strategies. Including participation, bottom-up initiatives and directly involving companies can create an inclusive and resilient plan. Many of these ideas are more feasible in the smaller scale while the extent of new developments and the desired density in M4H is relatively high. One of the strategies that could help with combining these two ambitions could be diversifying building plots, where various sizes will create spatial conditions to accommodate a wide range of solutions.

“(…) Fine-grained morphology that allows for greater socio-economic diversity. Although a disadvantage for developers looking to invest over bigger-sized plots, this formal quality guarantees that control lies in many hands.” Fani Kostourou, Cecily Chua, and Elahe Karimnia, *Benign Neglect*

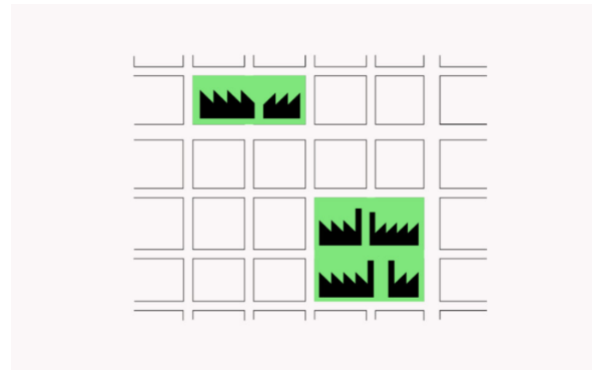
In order to achieve a balanced and adaptive plan “Metro Mix” suggests creating a framework, instead of a rigid plan to accommodate both structure and diversity. Proposed system would consist of one-third structure and two-thirds diversity. This combination would help with



IABR 2018 *The Missing Link*, Source: Vlaamsbouwmeester.be, 2020. IABR In Rotterdam Én Brussel | Vlaams Bouwmeester <<https://www.vlaamsbouwmeester.be/nl/nieuws/iabr-rotterdam-%C3%A9n-brussel>> [Accessed 8 December 2020].



Concentrating manufacturing activities that produce noise, dust, and problematic odours along infrastructure, minimises nuisances. Source: CoM, f., 2020. Cities Of Making. [online] Citiesofmaking.com. Available at: <<https://citiesofmaking.com/pattern/c9/>> [Accessed 5 December 2020].



Clustering similar types of manufacturing promotes conditions for innovation, competition and collaboration while increasing access to staff and concentrating associated environmental issues. Source: CoM, f., 2020. Cities Of Making. [online] Citiesofmaking.com. Available at: <<https://citiesofmaking.com/pattern/n4/>> [Accessed 5 December 2020].

assuring adaptability of the plan without reaching extremes like solutions that are too fragmented or too rigid to change quickly. It is important to set some spatial conditions in order to achieve desired qualities, but a large part of the development can benefit from a certain degree of freedom and flexibility. It is an important strategy that was clearly visible on the architectural scale in examples of mixed-use buildings described earlier.

In order to explore future possibilities of living and manufacturing in an innovation district it is important to keep in mind that mixing is not about creating the same conditions over the whole area. Manufacturing with its activities and logistics doesn't need to happen everywhere. Especially in case of combining it with residential functions it is beneficial to make space for more quiet zones that could gradually transition into more noisy areas.

“We have to acknowledge that we cannot mix whatever happens along the street - so trucks and tripods do not go well mixed together in one street. It is important to create different spheres, different qualities along, or in certain spaces.” Birgit Hausleitner

This brings us back to the ideas of creating high streets with higher densities and representative buildings and more enclosed courtyards with either quiet residential blocks or manufacturing functions. Mixing very opposing functions, especially on a smaller scale doesn't always work — the aim should always be to create a situation where they support each other and benefit from each others' proximity. For example clustering similar manufacturing sets conditions for collaboration, innovation and possibility of creating shared functions.

Both “Metro Mix” and “Cities of Making” researches propose zoning on the basis of the environmental nuisances instead of program: functions with similar performance and needs could be grouped together. With defined maximums for the traffic pressures, odor, noise, danger etc. the possibilities of mixing can be increased. By using these tools we can create various zones (or streets) with a different character and concentration of activities, rest or noise (Reuring Rust en Ruis). In these areas it would be possible to mix working and living in many different variations. It is easy to imagine that some streets would be more suitable for projects like Lobe Block, others for IBeB or Pullens Estate. In other areas there would be space for more traditional typologies with bigger apartments and smaller collective zones. In that way there could be room for young people and students craving vibrant city life as well as families with kids that appreciate quiet houses with access to high quality green recreation spaces. There could be different living concepts per zone and therefore bigger diversity of inhabitants.

Microzoning — one of the strategies listed by “Cities of Making” research project is used to create thematic zones with different functions and businesses. With site-specific planning regulations these zones could host a wide range of activities and interventions. Introducing microzoning could also help with creating transition zones between various districts — from more residential ones to more industrial. These gradients of functions would also require gradual change of scale of spaces, publicness and a degree of nuisances. Many kinds of manufacturing can become a vibrant part of a city life, while others — the ones that produce noise, dust and odours can be located along infrastructure.

Rotterdam West

It was very helpful to use existing research to support discussions during the zoom-out session dedicated to the bigger scale of Rotterdam West – across M4H, Dakpark and Bospolder-Tussendijken. Various documents created by the Municipality of Rotterdam set specific goals and ambitions for those districts, describing the role they will play within the city. However, it was noticed that the relationship between these areas has not received much attention yet. It was interesting to participate in a discussion on not only how to connect M4H with BOTU, but also how to transform the two neighbourhoods into a mutually-benefiting, dynamic part of the city.

“BOTU, M4H and Dakpark are often considered and studied separately, without relation to one another. We believe that looking at them together with a broader metropolitan perspective will benefit each development and will benefit the whole city. We believe that the city of the 21st century should be compact, sustainable and resilient to be able to adapt to the challenges of the future.”

studio Iza Slodka, h3o, COFO architects

Strong relationship between BOTU and M4H is something already happening, due to different bottom-up initiatives, which build a strong community of local inhabitants and workers. They gather and work around various makerspaces, community gardens, outdoor markets and organize events and festivals. During the discussion Lisette Groen from Gemeente Rotterdam noted that supporting the existing community is a big part of the future strategy for this part of the city. Providing affordable housing and attracting young people would add another layer in activating this part of Rotterdam.

Undoubtedly physical connections between M4H and BOTU are necessary – pedestrian bridges above the train tracks used to allow for inhabitants to work in the port area. Now, with the Dakpark creating a new barrier there should be a new link (for example a foot-bridge proposed by Monica Adams from Keilecollectief). There is however, more to be considered. New innovation district doesn't need to be limited to the historical borders of M4H. In fact, for creating a successful metropolitan mix, this new neighbourhood will need both global and local participants, functions and spaces.

Transformation of the M4H has a potential to address and solve issues in the surrounding neighbourhoods. Adding a diverse range of jobs,



(Above) Event in the Keilecafe' in M4H (foto: © Dick Ronteltap, featured on Findglocal website) Source: <http://www.findglocal.com/NL/Dordrecht/208809743009678/Lola-Presenteert-Zwarte> [Accessed 13 December 2020].

(Below) Community activity in Bospolder Tussendijken (foto: © Frank Hanswijk, featured on IABR website) Source: <https://iabr.nl/nl/zoek/voedsel/1> [Accessed 13 December 2020].

also in the manufacturing sector will attract knowledge and talent based in BoTu and Oud-Mathenesse, creating new career and network opportunities. Adding housing in the Merwe-Vierhavens could change the perspective of the neighbouring districts. Spatial elements that now function as barriers or transit corridors could become the new center of the Rotterdam West. By thinking of Dakpark as the main green space in the area, we offer a new, metropolitan perspective. It is an interesting exercise to consider it as a Central-Park-like heart of the neighbourhood. The shops underneath could transform some of their functions and become a new meeting point for the neighbours. With mixed-use ideas as leading principles it quickly becomes clear that spatial and programmatic diversity should be added to stimulate a wide range of users and activities.

Both zoom-in and zoom-out sessions, while looking at the future of M4H from different perspectives, brought up similar points during the discussion. A wide range of invited guests helped with creating an overview of the topics of pioneering and experimental mixed use buildings, diverse compact future cities and resilient developments. It was clear that there was a shared and strong motivation of creating an inclusive and unique part of Rotterdam amongst all different participants of the talk. We were happy to leave the discussion feeling optimistic for the future.

Motor voor de omgeving

Stel maatschappelijke meerwaarde in de directe omgeving randvoorwaardelijk voor de ontwikkeling

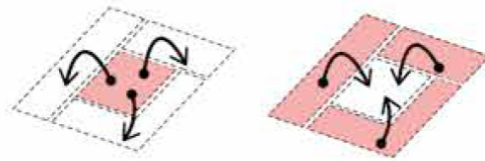


Diagram: Engine for the development, Source: (Guiding Principles Metro Mix, 2019)



Left: Vierhavenstraat, current, Source: <https://bouwtechniek.bouwformatie.nl/projecten/Bigshops%20Parkboulevard/?type=Projecten>
 Right: Oude Binnenweg, historical, Source: <http://www.engelfriet.net/Alie/Hans/bentinckplein.htm>

Sources:

Books pdfs

Hill, Adrian V (ed.). (2020) *Foundries of the Future: a Guide to 21st Century Cities of Making*. With contributions by: Ben Croxford, Teresa Domenech, Birgit Hausleitner, Adrian Vickery Hill, Han Meyer, Alexandre Orban, Victor Munoz Sanz, Fabio Vanin and Josie Warden. Delft. TU Delft Open, 2020.

Multiple Authors, *Guiding Principles Metro Mix*, College van Rijksadviseurs, 2019.

DELVA Landscape Architects / Urbanism, Site Urban Development, Skonk, Goudappel Coffeng, Ruimtelijk Raamwerk Merwe-Vierhavens Rotterdam: *Toekomst in de maak*, 2019.

Magazine articles

Schreurs E., van Gameren D., Kuitenbrouwer P., *The Pullens Estate*, Dash 15 Home work city, pp. 82-89.

Schreurs E., van Gameren D., Kuitenbrouwer P., *IBeB: INtegratives Bauproject am ehemaligen Bumengroßmarkt*, Dash 15 Home work city, pp. 146-155.

Doyle J., Crist G., *Affording Tighthness*, Monu 32 Affordable Urbanism, pp. 116-121

Fani Kostourou F., Chua C., Karimnia E., *Benign Neglect*, Monu 32 Affordable Urbanism, pp. 62-69

Bicak N., *Affordable Access: The Economic Impacts of Makerspaces*, Monu 32 Affordable Urbanism, pp. 62-69

Websites

<https://citiesofmaking.com/>