



ICT - Information and Communication Technologies

Project Acronym: MAZI

Project Full Title: A DIY networking toolkit for location-based collective awareness

Grant Agreement: 687983

Project Duration: 36 months (Jan. 2016 - Dec. 2018)

D2.7 Design, progress and evaluation of the Kraftwerk1 pilot

Deliverable Status: Final

File Name: MAZI_ D2.7_final.pdf
Due Date: 30 June 2017 (M18)
Submission Date: 28 June 2017 (M18)

Dissemination Level: Public

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History

Version	Author	Date	Status
1.0	Ileana Apostol	May 30th, 2017	Initial Draft
2.0	Panayotis Antoniadis	June 5 th , 2017	Draft
3.0	Philipp Klaus	June 12 th , 2017	Draft
4.0	Ileana Apostol	June 15th, 2017	Final Draft
5.0	All	June 20 th , 2017	Final Draft
6.0	Ileana Apostol	June 25 th , 2017	Final Draft
7.0	Jens Martignoni	June 28 th , 2017	Final Draft
8.0	Philipp Klaus	June 28 th , 2017	Final Draft
FF	Stavroula Maglavera	June 28 th , 2017	Final Draft reviewed



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Executive summary

This is the first out of three deliverables on the design, progress and evaluation of the Kraftwerk1 pilot in Zurich, Switzerland. It reports on the first "Observation phase" and on a number of parallel activities that set the scene for the development of customized versions of MAZI toolkit inside and outside Kraftwerk1. Many of these activities were not anticipated at the time of the proposal writing, and thus they were not included in this first phase of the pilot. They are the outcome of important opportunities that appeared such as the co-organization by NetHood of the INURA conference in Bucharest, where the INURA coop initiative was launched, and of the related event of the Greek Pavilion at the 2016 Venice Architecture Biennale, as well as the creation of the Wunderkammer association and the corresponding project at Zurich's Glattpark that shares interesting similarities with Berlin's Prinzessinengarten, and finally the intense activities of the NeNa1 cooperative together with the foundation of the neighborhood Forum 5im5i, which led to many encounters and collaborations like the one with the Openki project among others.

All these opportunities enabled the MAZI partners to become active members of the wider ecosystem of grassroots organizations related to cooperative housing, and in general to the right to the city in Zurich and beyond. This engagement has not been fueled only by the MAZI research activities, but it is rather intrinsic due to NetHood's genuine interest to become a part of the cooperative movement, where INURA Zurich Institute is already actively engaged. This is a situation very difficult to "simulate" and, for this reason, it became an interesting experiment with respect to combining research and action from which MAZI can only benefit.

This deliverable summarizes the key actors involved in the pilot development process as well as some of its initial outcomes. It includes a short introduction to the core ideas and concepts behind the cooperative housing movement in Zurich, collected and clarified through a series of events with the participation of some of this movement's protagonists. It provides also the analysis of Kraftwerk1's intranet, the original task for this phase, together with the first results of an ongoing survey implemented with the use of the FLOSS tool 'limesurvey', which is a candidate application for MAZI toolkit.

The most important finding at this stage is that information and communication technologies are mostly seen as tools to facilitate interactions, and not themselves or their design as a target of participatory processes based on principles of sustainable development.

Therefore, it seems that the best way to introduce the Kraftwerk1's residents to the ideas of MAZI, and to engage them in a bottom-up process for MAZI toolkit's co-design and to appropriate ways of using it is the initiation by MAZI partners of a working group on technology, in addition to the cooperative's various working groups either on architecture, or on food, energy, and other forms of urban resilience.



1. Introduction

This document is the first report on the Zurich pilot after six months of project activity. In this introductory section two aspects of the Kraftwerk1 pilot namely its context and its design are highlighted. In the following sections the pilot project partners as well as the various local initiatives that relate to Kraftwerk1 are described in detail --the center around which revolves the pilot study-- and their interactions and exchanges. This includes the elaboration of the pilot process that is illustrated with the description of events and actions taken in the preparatory and initial phase of the pilot. The deliverable concludes with notes on propositions for evaluation and on further steps in the pilot development.

1.1 The Pilot Context

In Zurich, Switzerland, there is a long tradition of organizing urban housing in cooperative form. Since more than a century ago, this way has been a viable solution to provide affordable housing, by pooling resources together to build shelter of relative higher quality compared to what a single owner could afford. In many of these cases, for instance, groups of public servants developed cooperative housing projects that are similar to the UK building societies.

After the period of deindustrialization from 1980 to 2000, however, these projects have taken in Zurich a particular path. At the time there was the intention to redevelop former urban brownfields, either railway or other industrial land, as a result of grassroots participatory processes that were meant to be represented in the real estate market by non-profit oriented collective actors, namely the housing cooperatives. Moreover, these 'young cooperatives', as they are called, aim to be more than just collective housing projects. They are rather laboratories of sustainable urban living in a society beyond the global crises generated in the last decades (refer to Apostol 2015), contributing in this manner through their daily living as well as through their development and operation processes to the renaissance of the traditional cooperative movement in Zurich. Kraftwerk1 is the first materialization of the 'young cooperatives' movement, and therefore was chosen as the center and starting point of the Zurich pilot study.

After all what is Kraftwerk1?

Kraftwerk1 is a cooperative and grassroots housing and workspace project in Zurich, Switzerland, which at present has already developed three settlements with more than 500 residents in total. These three Kraftwerk1 estates are by the name of Hardturm, completed in 2001 and housing around 270 people; Heizenholz, housing 85 inhabitants since 2012, and Zwicky Süd completed in 2015 in the proximity of the Zurich Airport for 240 residents and 90 working on the premises. More details in the German language are on the cooperative website http://www.kraftwerk1.ch.



Figure1: The three Kraftwerk1 settlements (Hardturm, Heizenholz, and Zwicky)



Kraftwerk1 started as an experiment in the real estate crisis of the 1990s (refer to Andreas Hofer online article). As p.m. (1998) noted, the concept of the Kraftwerk1 departed from the vision of a worldwide movement of appropriation of former industrial areas toward shaping "a new civilisation beyond work."

Kraftwerk1 became a collective, self-organized, environmentally and economically sustainable urban alternative, within a mix of residential, social and commercial spaces. The first settlement was in 81 residential units of various compositions and sizes, from individual housing to collective living (2 to 13 rooms), which are self-financing and define their own social structure. Additionally, more than 100 people work in small businesses of all kinds in the settlement. A restaurant, a hair-salon, a self-managed grocery shop and a kindergarten are some of the public services provided in Kraftwerk1 (refer also to Wirz 2004).

The development process of Kraftwerk1 was inspired by p.m's (1983) utopia bolo'bolo. From its conception phase Kraftwerk1 was not supposed to become an island disconnected from its larger context, and thus there are multiple ways in place to connect it with the city, the outside economy, and the countryside, for instance, through exchange of agricultural or industrial products and services. Its members maintain a direct link with farmers in the proximity of Zurich through food supply and temporary commitment on the farms. Ortoloco is such a farm that provides fresh vegetables directly to the grocery shop of Kraftwerk1 Hardturm. Some of the members of the housing cooperative are also members of the farm cooperative, in exchange of fresh organic local produce contributing some work hours together with the membership fee. At the same time, for visitors there is guest room provision, and the commercial and office spaces on the premises establish further networks with its urban context. Kraftwerk1 members developed environmental standards, operational concepts, and collaborative activities in dialogue among themselves and the elected cooperative bodies.

In the section on the actors associated with the MAZI pilot in Zurich comprise a detailed description of these groups and the cooperative organization. Before explaining the operational structure of such complex constructs like the Zurich housing cooperatives though, the design of the pilot study is presented.

1.2 The Pilot Design

The Zurich pilot of MAZI intervenes in an ongoing process of experimentation with urban living projects, as a cross-section during the project duration, to explore the usefulness of DIY technology in enabling, facilitating, or enhancing the political processes that are part of these cooperative projects. The MAZI team selected four threads of research for the pilot.

- One pilot component is to explore the tools that are necessary, or already in use and assess their success, in the participatory practices implied in the operation of Kraftwerk1
- A second thread is the technology enabled transfer of knowledge locally from Kraftwerk1 to NeNa1, which is the newest housing cooperative in Zurich
- A third interest of the pilot is the knowledge transfer abroad, in particular to Athens in Greece through interested local groups such as Co-Hab, but also to other cities like Belgrade in Serbia through the collective Ministry of Space, by networking through INURA under the new INURA coop initiative
- The fourth thread is the role of technology for urban activism that impacts local actions, for example the Zurich's Wunderkammer project as a temporary land use, as well as international practices that stay in communication through the INURA network.

In MAZI DoW, it has been anticipated four phases of activity within the Zurich pilot. In the first phase that covers this reporting period of six months, the use of the Kraftwerk1 Intranet is to be analysed through surveys and participant observation by INURA in close collaboration with NetHood. The main objective is to use the results of



these analyses to produce documentation potentially adding to more in depth understanding in the MAZI team of the cooperative organization as well as of the special needs that MAZI toolkit could fulfil.

Performing research through participatory practices, seven questions are taken into account when reflecting upon the design process, as stated in deliverable D3.8 (p.8) based on the list of suggestions of Bossen et al. (2016). These are:

- 1) the evaluation purposes,
- 2) the actors who conduct it,
- 3) the participants in it
- 4) the actors who define the evaluation criteria,
- 5) the methods for evaluation,
- 6) its intended audience, and
- 7) the intended use of the evaluation.

Building on the experiences from the other MAZI pilots and on the evaluation of the existing Intranet platform, the second phase of the task will produce an official offering by the MAZI project to the Kraftwerk1 cooperative for a local "knowledge transfer" application. This MAZI application is planned to be installed in the local Intranet and/or the local MAZI zone in the third phase, and then followed by surveys of operation and reiterations, while the fourth phase is meant to document the pilot and lessons learned.

So far the Intranet analyses have been briefly synthesised in the document included in the Appendix A. They are subject to discussion in the next phase of the pilot, to turn these findings into starting points for action. Aside from these tasks, in the first year of the MAZI project the Zurich team has led an intense pilot preparatory phase before the official beginning of the pilot study, which is reflected in the description of the various events and activities included in the Section 3 on the pilot process.

Zurich MAZI research team proposes to design the process around interdisciplinary structures for information sharing. A 'step back' attitude of field researchers is advocated, focusing on creating opportunities for encounters, deliberations and information sharing for the project research team, and also together with the community partners. As such one of the main activities within the pilot has been the organization of events as pretext for gatherings where strangers are brought in contact; that generates information sharing, exchanges and interactions, building shared understandings and ultimately producing knowledge that may be transferred from one context to another.

Furthermore, MAZI team in Zurich proposes a relatively ambiguous position of researchers relative to the object of study, inspired by anthropologists' relation to field research, which cannot be defined completely either outside or inside the space of research. As American anthropologist Fadwa El Guindi (2004) argues, "Just like an insider can become an observer, there is a "native" in every outside observer. There is a native within everybody, including the observer, and a potential observer in every native" (p.191). Accordingly, MAZI has proposed the metaphor of the stranger, detailed in Section 2.2.2 of the D3.11 deliverable, to describe the role of researchers and activists in the project as elements of the group itself "whose membership within the group involves both being outside it and confronting it" (Simmel 1971 [1908], p.144). All MAZI partners in Zurich are associated with one or another initiative, with various degrees of attachment, engagement or membership.

For instance, Philipp Klaus representing INURA in MAZI is an inhabitant and member of the Kraftwerk1 cooperative, where he is active in various boards and working groups, as well as a member of the office association in the office building of Kraftwerk Hardturm. Also he is a member of the neighborhood Forum 5im5i. As for NetHood, Ileana Apostol and Panayotis Antoniadis are members of NeNa1 cooperative, engaging also with working groups, and are active members of the Forum 5im5i. Panayotis is also a member of Kraftwerk1, and is active within the group developing the Openki platform. He is also member of the Wunderkammer association. Ileana is a member of the



national association Neustart Schweiz. The three MAZI partners in Zurich are connected through INURA and have been proactive in launching the INURA coop initiative. Moreover, they have developed collaborations around the MAZI pilot in Zurich, among others, with Thomas Raoseta, who is a Board member of NeNa1 cooperative and of the Forum 5im5i. In Athens Panayotis has been engaged in the formation of the Co-Hab group and in connecting the Zurich based Openki Lab to other initiatives in Athens including Co-Hab.

Based on the above statements, the next section is dedicated to the description of the project partners and groups associated with the activity within MAZI pilot in Zurich, as well as to mapping some of the relationships between them. This is meant to produce a canvas on which to experiment with DIY networking technology.



2 The Pilot Team

2.1 NetHood

NetHood is a non-profit organization based in Zurich, founded in January 2015, which aims to bridge research and action, activities of the academia and the civil society, around the design and use of tools that allow people in localities to get in contact, self-organize, and cooperate. Such tools include DIY wireless networks, community currencies, cooperative housing models, hybrid social infrastructures, and community-supported infrastructure.

At NetHood there is agreement regarding the development of convivial tools (refer to Illich 1973), for which one needs to follow innovative interdisciplinary and transdisciplinary research methodologies, that affirm rather than suppress differences. An action principle of NetHood is to invest first on understanding the diverse perspectives involved, before setting ambitious objectives that generate defense mechanisms and competition, through the organization of several interdisciplinary and participatory events.

This approach has resulted in numerous successful gatherings, many of which evolved into long-term collaborations. NetHood organized a series of workshops treating the concept of DIY networking as a "boundary object" starting with the Dagstuhl seminar on DIY networking (see Figure 1), followed closely by the Volos summer school that brought together an interdisciplinary team including local urban planners and policy makers, http://internet-science.eu/summer-school-2014, then the Alternet workshop at the London School of Economics http://www.iscc.cnrs.fr/spip.php?article1912, and the "offline networks unite!" workshop at the Transmediale festival, https://transmediale.de/de/content/offline-networks-unite. All these international and multidisciplinary work-related events have set the basis for two ongoing EU Horizon2020 projects, MAZI and netCommons.



Figure 2: The participants of one of the early activities of NetHood's co-founders, a Dagstuhl seminar on DIY networking that could be considered the starting point of MAZI. See http://www.dagstuhl.de/en/program/calendar/semhp/?semnr=14042



In MAZI, Nethood brings significant experience and expertise in inter- and transdisciplinary research on the concept of hybrid space design. Its co-founders Panayotis Antoniadis and Ileana Apostol have played a key role in introducing the concept of DIY networking to the field of urban planning. At the same time, important concepts from urban studies have been introduced to the engineering community active in building ICTs for urban environments. NetHood's main contribution to MAZI is the facilitation of the interactions between a highly diverse mix of partners and the creation of an overarching research framework making sure that the different perspectives and methodologies are to be integrated into a potentially unified but not too schematic approach. The outcome of this process is materialized in the design and implementation of the MAZI toolkit, and in the cross-fertilization between the different pilot studies.

It is expected a significant impact of this approach to undertaking research, both for the theory of interdisciplinarity and for the empowerment of citizens in shaping together their urban hybrid space. NetHood's methodological approach is rooted in knowledge gained from participatory practices in urban planning, continuously enhanced, with a highly intuitive attitude aiming to experiment, by combining interesting ideas from other disciplines such as design research and participatory design. One of the key premises of our approach is that democratic participation requires that all parties involved become aware of each other's preferences and points of view, and designing participatory processes implies flexibility, patience and long-term thinking, as well as developing an art of acting within these processes.

NetHood activities engage already activists and civil society organizations in collaborations combining DIY networking with other forms of self-organization, and different framings for innovative transdisciplinary research. More specifically, on the one hand, NetHood structured an ongoing knowledge-transfer project on the topic of cooperative housing that already materializes between Zurich and Athens, as described in the next sections of this document. Also a recent initiative within the INURA network, by the name INURA coop initiative generated already exchanges and information sharing between NetHood, and the Ministry of Space and the Smarter Building collectives in Belgrade, Serbia, that are building on previous collaborations within the EINS project (refer to COMPARE) http://compare-network.net/zurich/>. On the other hand, NetHood is engaged in ongoing work on community networks: a participatory design process for combining smart farming with community networks in the area of Sarantaporo, Greece, , and educational games for understanding community currencies as tools for commoning projects such as cooperative housing projects like NeNa1, Mehr-als-Wohnen in Zurich and/or community networks like Guifi.net in Barcelona http://networkcultures.org/moneylab/2016/12/06/flexonomix- http://theconversation.com/diy-networking-the-path-to-a-more-democratic- district-currency-game/> internet-67216>.

From some of these environments that are highly diverse but somehow controlled, NetHood tries at present to bring experience to the actual research field --the urban neighborhood, a laboratory of real life-- engaging selected people around concrete framings.





Figure 3: A neighbourhood tour in the Zurich's 5th district, organized by the Forum 5im5i with the participation of Ileana Apostol of NetHood (Photo by 'Raphi See' from 5im5i.ch)

For instance, as members of the relatively recent neighbourhood association Forum 5im5i in Zurich, and collaborators of the open source software project Openki, NetHood aims to engage people living in the same neighbourhood, namely Kreis 5, in organizing ad-hoc gatherings in different locations and around different objectives, facilitating open democratic dialogues at the local level, on topics that could range from decision making regarding important issues of everyday life in the neighborhood to knowledge sharing or even simple socialization and "getting to know each other".

2.2 INURA

INURA is a non-governmental and non-profit organisation with a self-organising, non-hierarchical, decentralised structure. INURA is a network of people involved in action and research in localities and cities, and will participate in the project through the INURA Zurich Institute. The Network consists of activists and researchers from community and environmental groups, universities, and local administrations, who wish to share experiences and to participate in common research. Examples of the issues that Network members are involved in include: major urban renewal projects, the urban periphery, community-led environmental schemes, urban traffic and transport, inner city labour markets, do-it- yourself culture, and social housing provision. In each case, the research is closely tied to, and is a product of, local action and initiative.

Since 1991, a conference is held every year in a different city, organised by a local team. People gather for exchange and mutual learning about projects and developments in cities around the world. Public events are part of the conference, as well as visits to neighbourhoods, local initiatives, and social and cultural centres. The dissemination of INURA's principles and knowledge on best practices is achieved also by means of international comparative urban studies. Some of these studies are already published in two books (INURA eds. 2004 and 1998), as well as an on-going comparative mapping project of more than 35 cities all over the world by the name 'New Metropolitan Mainstream' (see www.inura.org).





Figure 4: The public event of the INURA Conference in Bucharest, moderated by Ileana Apostol (NetHood) and featuring Marco Clausen (Common Grounds)

The INURA Zurich Institute brings in the project expertise in cooperative housing initiatives, non-hierarchical decision making processes and quality of life development in neighbourhoods as well as in impact assessment and project/process evaluation. The INURA Zurich Institute's office rooms are situated in Kraftwerk1 since the very beginning (2000). As a member of the cooperative, Philipp Klaus (INURA) is actively involved in different working groups and decision making processes at the cooperative's assemblies. Some of the key tasks of INURA Zurich Institute in MAZI are the coordination of the Kraftwerk1 pilot, and the participation in the implementation and use of the MAZI toolkit for neighbourhood activities, opinion and decision making in Kraftwerk1. INURA will evaluate the achievements of goals for the Kraftwerk1 pilot by means of participatory observation and interview techniques.

On a local level the research in the project on new participative tools and possibilities is enriching the experiences in the field. On an international level the project brings up an additional key issue, the role of DIY networking, in neighbourhood development and in understanding alternative urban development as "Possible Urban Worlds" (Harvey, 2000). For the INURA Zurich Institute this broadening in approaching neighbourhood development will open paths to additional research and practice fields on a regional and international level.

Thus other key tasks are the application and evaluation of MAZI toolkit in organisation, decision making processes and activity support during the annual INURA conferences as well as providing platforms for exchange of experiences among the participants from a series of different cities. As the INURA Zurich Institute is the coordinator of the INURA network for about twenty years, it has the credibility and experience to promote synergies and successful collaboration between MAZI and engaged INURA members in various European cities like Bucharest, Belgrade, Athens, London, and Berlin, whose activities can benefit significant from the MAZI toolkit.

2.3 Active groups in the context of MAZI pilot

2.3.1 Kraftwerk1 Housing Cooperative

As mentioned also in the section on the pilot context, Kraftwerk1 is a self-organized collaborative social and political construct with the central legal body of a Swiss cooperative and additional linked associations. To sustain its operation, there are various boards, committees and working groups in place. From the point of view of residents, along with the financial contribution for the collective infrastructure, temporal engagement is also among members' duties in the form of time to subsidize internal common services. Kraftwerk1 members have various rights among which the life-long right of lodging, of social assistance from special funds, of democratic



participation implying support in translation and informal preparation of meetings, and of information through the bulletin board, website, public hearings on demand etc.

To illustrate the complexity of its organization, the following list shows the various bodies that help in the organization of Kraftwerk1 collective living:

- the Building and Housing Cooperative (Bau- und Wohngenossenschaft Kraftwerk1), which is responsible for the financing and building of the structures of Kraftwerk1 as well as with real estate management
- the Organization of Users (OU), which are members of the Building and Housing Cooperative, but also associated with Kraftwerk1 as tenants (housing, office space or businesses)
- the Board of the Organization of Users (BOU), which represents it officially
- the Kraftwerk1 Council (Kerngruppe), with delegates of the groups and the OU, assigning tasks to the BOU, organising and formulating motions for the plenary assembly, and devising regulations
- the Plenary Assembly
- the Solidarity Commission dealing with the Solidarity Fund

As well as multiple sector groups such as:

- the 'Action Day' Group organising the days of common work (Aktionstag)
- the Housing Committee choosing new residents (Wohnungsvergabe)
- the Outdoor Space Group organising the work around the buildings (Aussenraum)
- the 'Circolo' Group organizing cooking and eating together (around 40 people)
- the Rooftop Garden Group (Dachgarten)
- the Group in charge with the community room (Dachraum)
- the Group in charge with the Film club
- the Group in charge with the self-managed grocery shop (Konsumdepot)
- the Group in charge with the ground floor bar (Pantoffelbar)
- the Group in charge with the bicycle repair and garage (AG Velo)
- and several ad hoc groups

In the Kraftwerk1 Charter, which can be modified in the plenary assembly, are stated the principles and guidelines on which the cooperative has been founded, as well as a) the means, that are the housing units, the collective infrastructure, the programs including networking and sustainable lifestyle, transparents accounting, flexibility and subsidiarity, and of course, integrative procedures of decision making; b) the duties such as financial contribution, temporal engagement and communication, c) the rights and entitlements of inhabitants like the right of use, social assistance, democratic participation, and information. It is available on the website in the German language http://www.kraftwerk1.ch/geschichte/charta.html

2.3.2 NeNa1 Housing Cooperative

Bau- & Wohngenossenschaft NeNa1 --the acronym for "new beginning neighborhoods"-- is a recent housing and living cooperative in Zurich, which engages a dynamic group of people in an ongoing political process that explores various manifestations of the collective, self-organized, environmentally sound and economically sustainable urban living alternative <nena1.ch>. That means to develop an urban insertion that takes into account multiple perspectives, based on the cooperative principles and responding to the necessities of the community at large, including the immediate proximity in the neighborhood. The grass-roots initiatives within this process aim to generate socially integrated and resilient neighborhoods, and from this point of view NeNa1 is a contemporary experiment within a broader process of building new understandings of urbanity, urban lifestyle and urban



commons, based on self-organization and the affirmation of diversity within an ideal of sustainable city life (refer to p.m. 2014).



Figure 5: NeNa1 general assembly 2016 and workshop on sharing space at the regular NeNa1 monthly meeting

The NeNa1 long-term vision is along with principles formulated by the Swiss association Neustart Schweiz <neustartschweiz.ch>, according to which currently also other housing cooperatives organize in Switzerland, for example, LeNa in Basel. Moreover, NeNa1 builds its activities on a century-old tradition to provide affordable residences in the form of cooperative or not-for-profit housing, and from the young cooperatives in Zurich based on similar ideas are: Mehr-als-wohnen, Kalkbreite, Karthago, das Dreieck, and more. In the last two decades this expertise complemented by innovative experiments brought to reality complex new developments that integrate transformative options of various aspects of the everyday life: a multitude of forms of residential units, diverse work situations, resilient consumption patterns, community supported agriculture, alternative forms of energy, self-organization and determination, participatory practices and collaborative action.

NetHood partners are members of the NeNa1 cooperative, and engage in some of its current activities. The NeNa1 organization of activities is specific to a development process rather than to the everyday operation of the collective life like in Kraftwerk1 (see above):

- the Building and Housing Cooperative (Bau- und Wohngenossenschaft NeNa1)
- the Plenary Assembly
- the Work Group on the operating concept (AG Betriebskonzept)
- the Work Group on the construction/architecture aspects (AG Bau)
- the Work Group on land and food as a resource (AG Landbasis)
- the Work Group on internal economy aspects (AG Interne Wirtschaft)
- the Work Group on social aspects (AG Sozial) with a specific branch on intergenerational living (AG GüW)
- the Work Group on political aspects dealing with communication with media, partners and authorities (AG ExKom)
- the Work Group on internal communication (AG InKom)
- the Work Group on IT (AG IT-Dev)
- the Work Group on vocabulary (AG Linguistik)
- the Work Group on finance and the organization of members' contribution to the development process (AG Büro)



The NeNa1 Cooperative was founded also based on a set of principles included in the Statutes https://www.nena1.ch/statuten and in the Charter, available online in the German language https://www.nena1.ch/charta also in the form of a flyer to be printed for various events and activities https://www.nena1.ch/wiki/images/7/71/Charta.pdf

2.3.3 Co-Hab Athens

Co-Hab Athens https://cohabathens.com is a group in Athens, Greece, working on an applied research project, which was initiated in October 2016 a little before an event co-organized with MAZI at the Greek Pavilion at the 2016 Venice Architecture Biennale, with first thoughts coming through conversations with the research group on urban commons, by the name Koino Athina. The aim of the Co-Hab project is to elaborate collective ownership models, a long-term proposal for reclaiming quality of habitat and housing as a citizens' right in the center of Athens, and to become an exchange platform for urban researchers and activists on the issue of collective ownership. Some group members are also members of INURA, and have participated in the MAZI workshop at the 2016 INURA Conference in Romania, where the INURA coop initiative has been launched.

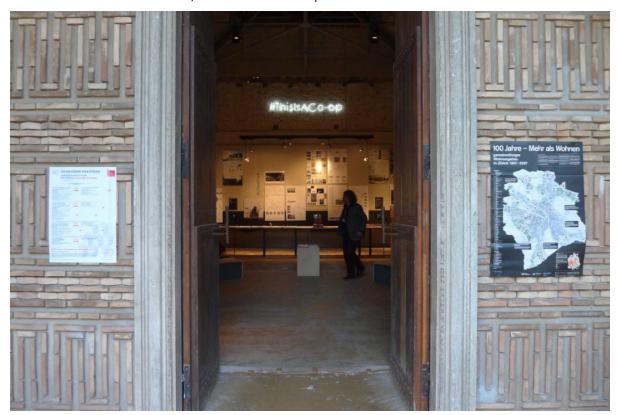


Figure 6: The entrance of the #ThisIsACo-op Greek Pavilion in Venice Biennale showcasing the poster of the Co-housing practices workshop (left) and the map of the cooperative housing projects in Zurich (right).

By focusing on the concept of decommodification of urban land, Co-Hab Athens collective seek and promote synergies with existing paradigms that have successfully been implemented abroad and with similarly oriented ongoing projects. In the local context it explores the existing legal framework to make new suggestions. Furthermore, it aspires to cultivate the imaginary of collective property and familiarize people in Athens with the



co-housing practices; to work out realistic scenarios and prototypes of alternative ownership of urban land and test them through pilot case studies in the center of Athens; to create physical and online tools to promote and support the idea; to engage in international networks of cooperation and knowledge sharing.

2.3.4 Wunderkammer

The Wunderkammer project came to life due to an opportunity to make temporary use of a vacant lot on municipal land at Zurich's Glattpark. Its objectives are to create an open space for experimentation on various areas of innovation and sustainability including "New Media". MAZI plays an active role in the corresponding working group, https://wunderkammer-glattpark.ch/arbeitsgruppen/neue-medien/.

Panayotis Antoniadis is a member of the corresponding association and participates in regular meetings and experimental actions like the "Art action day" organized by the cooperative ABZ in which the Wunderkammer's presentation through a mural painting was complemented by a hybrid letterbox installation welcoming passers by to express their wishes and visions about the future role of Wunderkammer in their neighbourhood.

In collaboration with Vesna Tomse, founder of Wunderkammer and active member of INURA, there are plans to organize regular seminars on technology offered by Panayotis Antoniadis and advertised through the Openki among other activities taking place in Wunderkammer.

2.3.5 Openki

The Openki platform --an open-source tool for local and self-organized knowledge exchange-- is conceived as the foundation for mediating non-commercial education opportunities, and aims to simplify the organization of a "peer-to-peer" sharing of knowledge. The platform makes all processes possible from the selection of topics, and the organization and execution of courses up to the documentation of the learning material. The general principle and ultimate goal of Openki is to become a tool for collaboration in bottom-up organizations, because there is a strong need for tools to make organization, or better communication easier and more horizontal toward participation, inclusion, emancipation. Openki is aware that technology alone is not enough to achieve this goal, and thus is playing the role more of a social-Hub than a technical lab, aiming to provide a meeting point and cafetype space that has the potential to bridge two worlds.

The Openki Lab, called Myzelia, is an active part of a very diverse and dynamic place in the city of Zurich, and is located in close proximity with three other venues for cultural and co-learning activities: the Autonomous School Zurich (ASZ), the Photobastei, a venue for photography exhibitions hosting various related cultural activities, and the Impact Hub Zurich. The ASZ provides education for all since 2009. On offer there are diverse educational and cultural activities for everyone both for undocumented refugees, the socially excluded and all other interested people, including language courses like German, Spanish, Arabic, English, Mathematics and Computing courses like Java programming and Gimp, but also Yoga and theatre courses, and more. Cultural activities include concerts, bar, cinema, as well as the well-known community dinner, three times per week, that makes the school a popular meeting place where experiences are shared and ideas can be developed. Urban Schwegler, Openki's co-founder, is also the housekeeper of the buildings; in addition to the official sharing of spaces between Openki and the ASZ, there are strong synergies also with the Impact Hub and the Photobastei, such as courses of ASZ and Openki workshops taking place at the Impact Hub and collaboration in exhibitions at Photobastei, meetups with Impact Hub at Myzelia.

The focus on geographic locations as the entry-point to the Openki world is exactly due to the fact that diverse groups may gather in geographic locations, providing settings where establishing mutual trust becomes possible. In addition, at the Openki Lab there is a strong focus on clear guidelines for decision-making, clear communication,



and avoiding exclusions through branding and specialization, but promoting transdisciplinarity and self-organization.

2.4 Community mapping

In Zurich there are many groups that contribute in one way or another to the cooperative movement. Figure 7 shows the mappping of the organizations that are related to the MAZI pilot. Placed in the center of the diagram are the Kraftwerk1 cooperative and the NeNa1 cooperative that traces the inspiration of its principles and founding to Kraftwerk1. Similarly, central are MAZI partners NetHood and INURA Zurich Institute, which are both connected to Kraftwerk1 in terms of membership and workplace as well as Philipp Klaus' residence and participation in the organization of the Hardturm estate. In addition to the other two Kraftwerk1 settlements, the collaborative project Mehr-als-Wohnen has been completed in 2015 creating for the first time among the young cooperatives, a neighborhood that was conceived, built and is operated on the cooperative principles. Mehr-als-Wohnen is the result of the collaboration of several housing cooperatives namely ABZ (one of the earliest in Zurich), Wogeno, das Dreieck and Kalkbreite. The latest was itself the outcome of the collaboration between Karthago and das Dreieck, and it is developing currently its second estate by the name of Zollhaus.

Also mapped were the solidarity farm Ortoloco <solawi.ch>, which is an agricultural cooperative located on land in the immediate proximity of the city of Zurich, where members provide labor in exchange to products, and that provides organic vegetables, and the Basimilch farm for dairy products, which are delivered directly to the Kraftwerk1 food shop, to Kalkbreite cooperative and sometimes to the NeNa1 dinners at the public gatherings. On the side of Kraftwerk1 there is also the association Stadionbrache, a temporary use of the terrain of a former stadium that is neighboring the Hardturm estate, and where there are ongoing environmentally friendly experiments, urban gardening, cultural and educational activities etc.

NeNa1 cooperative was born through the interactions within the Swiss association Neustart Schweiz <neustartschweiz.ch> and thus conceptually is related to the resilience principles promoted by this association. The NeNa1 cooperative will try to apply them in its developments, and another outcome of this think-tank is the Basel-based cooperative called LeNa, which is the acronym for "liveable neighborhoods". From a practical point of view, on the other hand, regarding some of its active members, neighborhood actions and the development of its operational concept, NeNa1 relates to the associations Forum 5im5i, FleXibles and NetHood, among others. NetHood brings the digital technology dimension into their activity, and collaborates with the Openki platform to bring that to reality. Besides Kraftwerk1 and NeNa1 participatory processes, another experimental field of NetHood is the temporary project Wunderkammer.

Another node in this network of relationships is the INURA association that brings in contact many local activities in Zurich and abroad. It is related to MAZI partners NetHood and INURA Zurich Institute, to the Wunderkammer project in Zurich, and the Co-Hab project in Athens that collaborates also with the Mietshäuser Syndikat in Germany. In addition, with the proposal of the INURA coop initiative at the INURA conference in Romania, action toward cooperative housing has been generated also in Belgrade, through the Ministry of space collective.



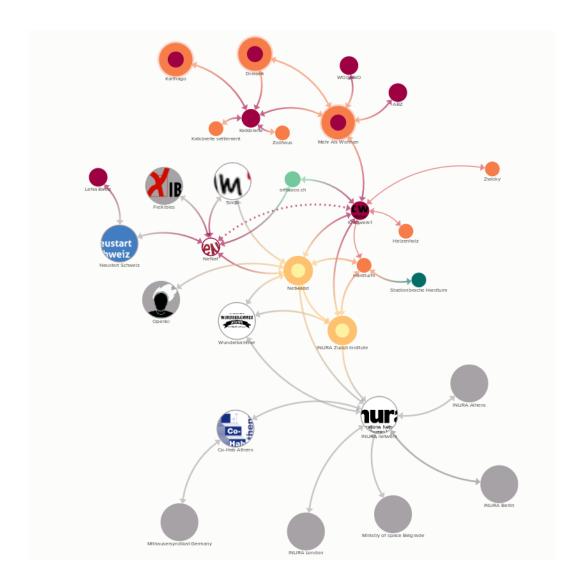


Figure 7: A relational map of self-organization initiatives in Zurich related to the MAZI pilot. Available at: https://kumu.io/panayotis/mazi-kraftwerk1-pilot

2.5 Notes on the pilot team

Networking of these actors and organizations is an ongoing endeavor through various civic initiatives, events and collective actions. A key outcome of these interactions is the added value of the specific efforts, creativity and concrete manifestations of praxis -- cross-fertilization it is called in MAZI. If a spatial layer is added, that is currently hybrid, the DIY networking technology could play the role of enabling information sharing between strangers so first to bring them in contact and then to facilitate their networking activities; mediating the production of knowledge, documentation and storage of information; developing user guidelines and structures for knowledge transfer, and sometimes catalysing these relational effects.



3. The Pilot process and outcomes

The timeline of the original four phases of the Kraftwerk1 pilot as described in the DoW is summarized below (Source: D3.8 p.13).

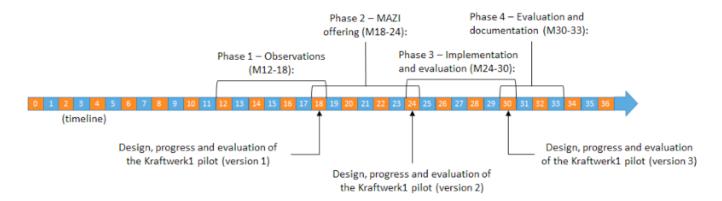


Figure 8: The timeline of the Kraftwerk1 pilot

The first 18 months of MAZI, in addition to the originally planned "Observations" phase of the pilot, the Zurich MAZI partners engaged in a series of concrete activities in collaboration with the different actors introduced above, which will play a key role in the future activities of the pilot. These activities may be listed as:

- 1. Exploration of the cooperative housing movement in Zurich
- 2. Evaluation of the Kraftwerk1's Intranet and preparations for a technology working group
- 3. Experimentation with the hybrid letterbox inside and outside Kraftwerk1
- 4. Active engagement in a wider set of grassroots initiatives in Zurich including the NeNa1 cooperative, the Forum 5im5i, the Openki platform, and the Wunderkammer project, as well as in the wider research community
- 5. Dissemination of MAZI concept through the INURA network
- 6. Instantiations of MAZI zones at various events and activities
- 7. Support of a new cooperative housing initiative in Athens including a knowledge transfer process

It is important to stress again that in all these activities MAZI partners have become active members of the communities they interact with (refer to the Section 1.2 on the pilot design), giving us a unique opportunity to experiment with new forms of participatory processes in which the researchers are also members of the communities that they study and "design for". Over time the pilot team became more and more actively engaged within the community. By changing various hats, it became obvious how critical is to perform the self-reflection activity that the MAZI project advocates. Some of the related reflections are included in the deliverables D3.2, D3.6 and D3.11. Taking seriously these various roles, it was possible to understand closely the different perspectives on the design of technology that are useful also during the evaluation phase.

In the following some key events and the main lessons learned are lied out from each of those parallel activities that have set the scene for the introduction of the MAZI toolkit to a diverse set of communities locally and internationally.



3.1 Cooperative housing movement in Zurich

One objective and research question regarding the cooperative housing movement and our partners in Zurich was, what are the origins and how the specific and somehow extraordinary situation in Zurich has evolved. For that Jens Martignoni of NetHood performed an initial background research about the movement's roots as well as an overview about its actors. A first part of this study was presented at the 12th International NPO-researchers colloquium, whose main focus was sustainability, at the Georg-August-University Goettingen in Germany(April 21-22, 2016). The presentation by Jens Martignoni was titled "Nachhaltigkeit und Vernetzung in zukunftsorientierten Wohngenossenschaften in der Schweiz" (Sustainability and networks in future oriented housing cooperatives in Switzerland" (held in German). A further elaborated article of the Goettingen-conference will be published soon in the final conference-sampler with Springer-Gabler publishers (Martignoni, forthcoming), followed by a translation of the published article in the English language. A next step of the work was then presented by Jens Martignoni at the workshop titled "Sharing ideas for sharing space" in Zurich, July 25-27, 2016 (see section 3.7) under the title "Utopian Forces in the foundation of New Housing Cooperatives in Zurich". In the following sections is an overview of this research.

3.1.1 Exploration

In Switzerland, over the last twenty-five years, a whole number of new housing associations have emerged that want to realize novel or newly re-discovered "future-oriented" forms of coexistence and a sustainable way of life. They are supported by an environment of constructive squatters, utopian societal designers and progressive architects, and over time became more and more anchored in public policy. In this context, models have been developed on how environmental and climate criteria can be implemented structurally and in the construction of novel forms of housing that are community-oriented, include a diversity of social actors, and the like.



Figure 9: The poster attached to the bicycle-stand of the Wogeno house "Klingenstrasse" says "Free of speculation: The cooperatives" (photo by J. Martignoni)



A large part of these new cooperatives were created in Zurich, which has experienced a housing boom in recent years when also many new cooperative apartments have been built. Since 1981, the original ideas have been differentiated, developed, established and spread to other cities, as future-oriented living and sustainable living forms. A first inventory of the utopian and conceptual background of these cooperatives and their sustainable orientation was elaborated to distinguish different currents and ideas resulting in today's situation.

Firstly, the foundations for the description of future-oriented housing cooperatives were developed and corresponding cooperatives were identified; then their characteristics, influences, and historical connecting points, as well as newly developed ideas were catalogued. As a theoretical background Jens used the utopian cooperative conception of W.W. Engelhardt (refer to 1990, 1998).

3.1.2 Identification of the object to be examined

For the identification of the cooperatives to be examined, the following selection criteria for "future-oriented" housing cooperatives were adapted:

Characteristics of future-oriented housing cooperatives (based on Switzerland):

- Cooperative housing in the legal sense
- Founding documents or foundation papers, model or statutes with clear utopian elements and the intention to realize them
- Founding period from 1980 (not applicable for historical comparisons)

These selection criteria were used to identify nine cooperatives and one historical predecessor, to be more closely examined and described. The research questions were formulated as: From where they derived their ideal, utopian basis and how this was implemented at the time of the founding. This preliminary data set contains the most important, publicly known and larger housing cooperatives mainly in the region of Zurich, where these forms have also been established. From these cooperatives the founding history, the founding documents and other publications were examined.

Name	Exact description	Place	Establishment
Freidorf	Housing Cooperative Freidorf (Historical comparison)	Muttenz	1919
Wogeno Zurich	Cooperative Wogeno Zürich	Zurich	1981
GESEWO	Gesewo, Cooperative for Self-Managed Housing	Winterthur	1984
Karthago	Cooperative Karthago	Zurich	1991
Kraftwerk1	Building and Housing Cooperative Kraftwerk1	Zurich	1995
Dreieck	Cooperative Dreieck	Zurich	1996
mehr als wohnen	Building Cooperative mehr als wohnen	Zurich	2007
Kalkbreite	Cooperative Kalkbreite	Zurich	2007



NeNa1	Building and Housing Cooperative NeNa1	Zurich	2012
LeNa	Building and Housing Cooperative Lebenswerte Nachbarschaft LeNa	Basel	2015

Table 1: Selected cooperatives in chronological order

3.1.3 Utopian elements

As a central feature Jens took "utopian elements" that means proposed ideal societal conditions suggesting innovations to reach them; Utopia as an intellectual design, and a wishful image of the future, usually far from the practice, but with an implication of setting it on the agenda. In practice this means that from the Utopia some elements are built into concepts which are already close to reality. In the case of new cooperatives, such elements are built e.g. into the legal form and conceptions of community and democracy, in basic documents, statutes and rules. This results in a hybrid effect in combination with traditional structures.

As a result of the analysis (see Martignoni, forthcoming), four sources of utopian thought and ideas for housing cooperatives can be distinguished:

- 1. Cooperativism: Historical cooperative housing and settlements movement starting from the 19th century
- 2. Base Movement: The protest and base movement of the 1980s in Zurich
- 3. Community-Utopia: Books bolo'bolo and Neustart Switzerland as literary utopias
- 4. Sustainability: The concept of the 2'000 Watt society, originally developed by the ETH Zurich

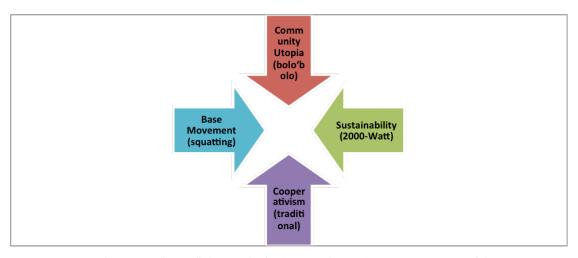


Figure 10: Four Utopian Elements or "Forces" shaping the funding impulses and mission statements of the new cooperatives in *Turich*

3.1.4 Funding impulses

All these utopian ideas and concepts form a reservoir of possibilities, which were selectively picked up and adapted by the founders of the new cooperatives. An analysis of the start-up impulses of the selected cooperatives shows



that the start-ups were fundamentally influenced by all available utopias, but the focus often lies on the latest or "most modern" concept.

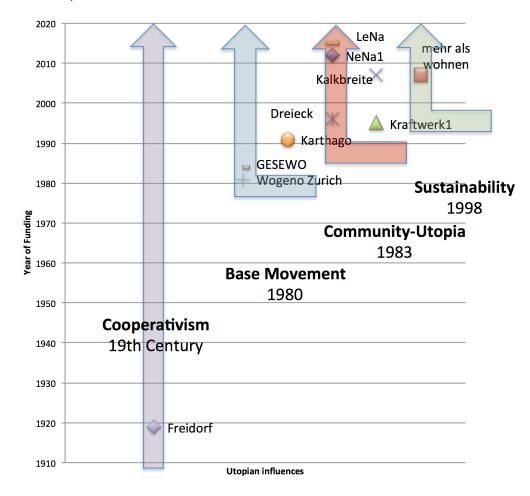


Figure 11: Sources of utopian elements for the design of future-oriented housing cooperatives in Switzerland.

3.1.5 Secondary framing factors

On the one hand, there were these ideas and elements which were very important, on the other hand there was the urban context that especially in Zurich evolved into a more and more favourable one. As depicted in Table 2 below, Jens used seven framing factors to describe these forces and their development in the last 40 years in Zurich.

Inhibition got stronger (more difficulties)	
Promotion got stronger (more support)	↑
Cost thinking, profitability (neoliberal economy advanced)	



Property prices (raised, more difficult to buy)	
Requirements, quality and building laws (more difficult)	
Capital costs (lower, easier to raise)	
Public opinion (won votes, preferable laws installed)	
Urban Policy (favourable policy, left government)	
Protagonists and activists (Strong and more professionalized)	

Table 2: The role of seven framing factors on the cooperative housing movement in Zurich the last 40 years in Zurich

Thanks to the positive development of important supportive factors the situation today in Zurich is very favourable for new cooperatives.

3.1.6 Conclusion

Future-oriented housing cooperatives have emerged in Zurich because utopian concepts and new housing ideas have been persistently pursued over more than 20 years. The above analysis (see also Martignoni, forthcoming) allows identifying some important factors, elements and forces that have shaped this process in order to specify the key elements of a successful cooperative housing movement and provide inspiration for new initiatives inside and outside Switzerland, like the CoHab Athens.

3.2 Kraftwerk1 Intranet evaluation and technology working group

The cooperative housing movement in Zurich is also active in exploring the use of technology for supporting the social and political life inside a cooperative. Many cooperatives have deployed local web platforms accessible only to residents. Kraftwerk1 is one of them, and it is one of the original objectives of this pilot to study the design and use of Kraftwerk1's "Intranet". Mein.kraftwerk1.ch ("my Kraftwerk1") offers a variety of functionality such as blogs, news, reservation system, and more, to the residents of the different settlements of the cooperative, as well as to the members of the cooperative who do not live in a settlement.

After a short period of observation, the pilot team quickly realized that mein.kraftwerk1.ch has not achieved significant engagement especially at the Hardturm settlement, the core location of our pilot. This fact motivated us to initiate a long-term participatory process around the design and role of the Intranet in Kraftwerk1. Moreover, team intends to create a new "technology group", to be included in the already long list of various working groups, that will discuss important issues around the role of technology in cooperative housing projects. It is expected that this process that was initiated only six months ago will provide invaluable feedback for the further development of the MAZI toolkit.

As a first step, Philipp Klaus designed together with Panayotis Antoniadis a survey, which was finalized with the help of key actors in the cooperative, including the administration and people involved in the discussions around the initial implementation of the Intranet site. The survey has been launched at the end of May 2017 on paper and online with the FLOSS software limesurvey, a candidate application itself of the MAZI toolkit. At the day of the



launching, the MAZI partners spent the evening at the Pantoffelbar, discussing with the interested residents, the motivation behind the survey and the expected outcomes through the results' analyses. At the time of writing of this deliverable, in less than a month, the questionnaire has been answered by more than 70 people online and by 8 on paper (more than ½ of the adult population of Kraftwerk1/Hardturm).

Looking at two of the most interesting questions for the MAZI topics namely a) the evaluation of the current functionality and new desired features, and b) the character of the technology group, there are already some interesting observations like the fact that the most wanted new functionality is an exchange platform for objects and services or that the majority is concerned with the politics of technology while less (around 30% of those answered) would be interested to participate in a technology group. Appendix A includes more detailed information and first results of the Kraftwerk1 Intranet evaluation survey; a more thorough study will be included in the next version of this deliverable.

In terms of communicating locally with the Kraftwerk1 residents, the pilot team made a first introduction of the MAZI project on November, 22, 2016, at the opportunity of the plenary assembly of the Kraftwerk1 Hardturm tenants. The team of the Zurich pilot has also led numerous internal workshops for brainstorming, preparation of technology for various events or drafting guidelines for the deployment of the Hybrid Letterbox, and the Guestbook application to be included in MAZI toolkit.

3.3 Hybrid Letterbox

Since the writing of MAZI proposal, the idea of the hybrid letterbox (also called sometimes HYBLBOX – or abbreviated hlb), was very attractive to Kraftwerk1 members, and this was the reason why the project team included it as a key artefact in MAZI zones envisioned to be deployed in Kraftwerk1.

Combined with MAZI Guestbook application, the hybrid letterbox offers a very flexible and inclusive way to invite people to share thoughts, ideas, impressions on different topics. It has the potential to become a standard artefact in cooperative housing projects as a means to bridge the digital divide, and at the same time to increase the collective awareness with low effort and commitments. There are, however, numerous possible framings that require understanding of the suitable details in different situations, especially at an early stage when people get to experience this hybrid object for the first time.

For this purpose, the Zurich pilot partners decided to start experimenting early with the letterbox, as an internal exercise in exploring the potential uses of the hybrid letterbox and the training process for non-technical people. Philipp Klaus and Panayotis Antoniadis engaged in a continuous process of brainstorming and experimentation focusing on the hybrid letterbox as a core element of the MAZI toolkit (see Appendix B for a brainstorming document produced by Philipp Klaus during one of this brainstorming sessions), while waiting for the other applications and functionality to mature.

After a set of guidelines were prepared for Philipp Klaus to be able to install on his own the hybrid letterbox, a first experiment was carried out on January 16, 2017, at Kraftwerk1's Pantoffelbar, one of the candidate locations for a permanent installation of the hybrid letterbox. The idea of Philipp was to follow a snowball strategy: start without any organization, just playing around, then continue by creating structure trying different versions (e.g., with or without projector, different types of motivating questions, etc), all the way to participatory and collective decision making processes.

So, in the first event, next to the letterbox there was only a simple handwritten sign, and there was no question written on the cards. In addition to various technical issues (e.g., it was discovered that in the offline mode if the time is not correctly set on the Raspberry Pi, many things do not work as expected), there was limited engagement by the people crossing the Pantoffelbar, as it was not clear the installation's purpose. The pilot partners quickly



realized that deploying a MAZI Zone is more difficult than expected. Thus the second experiment was prepared better. The team decided to do a permanent installation at the Bürogemeinschaft for one week with a proper poster, a laptop next to the letterbox for displaying the MAZI Guestbook, and to draw attention there was even provided some home baked pastry (see Figure 12). This time the result was very encouraging. The letterbox collected many cards with different forms of input, and many ideas for future deployments through the usage patterns (e.g., people engaging in dialogues through their cards), including the following:

- It is difficult for people to express themselves when they are observed. It would be useful to distribute the cards in different locations to allow people to write on them more privately.
- It would be nice to find a way to empower people not only to answer but also to ask questions (e.g., an active "question" card could be placed on top of the letterbox and anyone could throw it inside and replace it with a new one)



Figure 12: A visitor at Kraftwerk1's Bureaugemeinschaft contributing to the local MAZI Zone through the Hybrid Letterbox.

The three next deployments took place in public events: the DSI fair in Rome, the Wunderkammer participation at the "Art Action Day" by the ABZ cooperative, and the District Currency Game at the Karthago cooperative.



Figure 13: Hybrid Letterbox and MAZI Guestbook at Karthago cooperative during the District Currency Game



In all cases there was significant participation and engagement with the deployed technology, and additional experience was gathered, both technical and personal. The next step will be to deploy with an appropriate framing the first "official" hybrid letterbox installation in the premises of Kraftwerk1 Hardturm. This will take place after the finalization of the Intranet evaluation, and the first gatherings of the technology group is planned to create based on the feedback received through the survey.

3.4 Engagement with local initiatives and with the research community

As already mentioned in the introduction, the pilot expanded its initial scope to four threads of research, also due to the interest in DIY networking technology showed by various communities in the preparatory phases of the pilot. Beyond the applied research at Kraftwerk1, the Zurich pilot team engaged in various activities bridging theoretical research with practice. This encompasses mainly three categories namely common activities with local initiatives, communicating locally with the research community and invited talks abroad related to the MAZI pilot.

3.4.1 Common activities with local initiatives

Among the local groups and initiatives that engage in related activities in Zurich, the MAZI pilot team has collaborations with the NeNa1 cooperative and the neighborhood Forum 5im5i, as well as with the Lab developing the Openki platform and with the cultural project Wunderkammer; for detailed information on these organizations, refer to the Section 2.3 on Active groups in the context of the pilot.

Some examples of common activities: To prevent the process of fast gentrification of the Zurich neighborhood Kreis 5, the Forum 5im5i has organized petitions and citizen actions in the public space. Through such civic initiatives, in which the NetHood partners have been actively involved, in 2016 a small local grocery shop was rescued from eviction, as well as the media and the municipality of Zurich have been notified of the citizens' will to protect the neighborhood land from being developed for speculation or for a future congress house, and instead to allocate more of the built up to housing. Even more, on the current location of the bus station located in the immediate proximity of the railway station, the group has proposed to develop the NeNa1 cooperative housing and living.

For these citizen actions to come into being, there is intense preparation in terms of content, organization and logistics, which happens either during the NeNa1 working groups and public meetings (every 17th of the month), or during the public events that the NeNa1 members organize. For all these activities, the DIY networking in the form of MAZI tollkit can play a very significant role. For instance, at the NeNa1 public meeting on March 17, 2017, the participants have played the Time Game, an idea of Panayotis, to explore how the cooperative members might allocate their weekly time to various activities, private and public, including work for the common good. The results have been documented by Robert Schikowski, co-president of the NeNa1 cooperative, and the game can be reiterated in the future with the use of MAZI toolkit.

As for the specially organized NeNa1 events, for example, one of them was organized on May 20, 2017 by the NeNa1 Board members in collaboration with a team of four students from the Zurich University of the Arts (ZHdK). The event was called Utopoly, and included talks, an interactive game, and an exhibition on the topics of the NeNa1 Charter. In this occasion NetHood has tested the interest for, and the usefulness of a MAZI zone, which was called "Bio-Internet" at this occasion.

NetHood initiated the PARLA (PARticipatory LAb) project that works toward the public exposure within neighborhood events of the NeNa1 ideas and promoted urban practices, and at the same time toward networking neighborhood places, initiatives and residents. As a kick-off event on July 17, 2017, Ileana Apostol will moderate a roundtable with the topic "From Polyphony to Harmony" at EXIL, a local music club. During the conversations, the



experience of a jazz musician and composer will join that of an architect and project manager of large cooperative projects, together with an interactive visual artist, a linguistics researcher, a playwright, and a journalist and moderator of deliberations, to explore the multiple possibilities of creating harmonious outcomes of participatory process that affirm group differences and value diversity. After this 'analogue' event, the next step is to use a MAZI zone as a mediator and catalyst and to merge these experiences.

3.4.2 Communicating locally with the research community

MAZI concepts and actions have been disseminated locally, and advanced through exposure to and exchanges with the research community. In Switzerland NetHood organized a panel including MAZI partners at the 2016 IASC Conference in Bern, and participated with the MAZI poster in the 2016 Inter- and Transdisciplinarity Conference in Lucerne.

The conference panel with the title "Networking, Comparing, and Integrating Urban Commons Initiatives in Research and Action" was moderated by Ileana Apostol and included in the speakers Panayotis Antoniadis and Jens Martignoni of NetHood and Philipp Klaus of INURA Zurich Institute. Moreover, it has been the first attempt to network the CAPS community by including members of the MAZI and the netCommons projects.

The panel summary reads "The key question addressed in this panel regards the characteristics of technology that can support and interconnect various urban commoning activities. Four different areas of collective action in the city are addressed: community networks, social infrastructure, cooperative housing, and community currencies. Every paper introduces one of the above areas of commoning and explores different possibilities for linkages between them as currently explored in two new EU Horizon2020 projects, MAZI, http://mazizone.eu, and netCommons, http://netcommons.eu. A long-term vision of these research consortia is to collaborate toward promoting a spirit of sustainable living, while advancing the rich European democratic heritage through research and action. They wish to do this within specific cultures that shape their current and future collective living in the midst of diversity."

From MAZI consortium two abstracts have been submitted. One by Apostol, Gaved and Unteidig discusses the role of ICTs, and DIY networking solutions in particular, for the small scale social infrastructures of urban spaces for collective life, touching upon the role of technology in creating alternative materializations of social space, and in facilitating social learning processes.

The second abstract by Philipp Klaus presents the "young" cooperative housing and living projects in Zurich, through the example of Kraftwerk1, as an example of grassroots social infrastructures at the neighborhood level.

Rather than a series of individual presentations, the panel offered multiple dialogues that aim to network and integrate the specific facets of urban commoning, by reflecting on potential interconnections.

At the 2016 Swiss Inter- and Transdisciplinarity Day in Luzern, NetHood presented a poster on the MAZI project as an example of a transdisciplinary project. This was an opportunity to make a demo and deploy a MAZI zone (see Figure 15) that enhanced the understanding of the project content, for which the NetHood team received strong interest including that element of surprise that comes with the realization that configuring ICTs may be in non-techy hands. In the evening workshop of this conference, the interdisciplinary research of MAZI was placed within other similar endeavors, which discussed specific aspects of research scheduling, funding opportunities, delays in integrating findings into meaningful results and all sorts of dimensions that are not well taken into account in the current research environment.



3.4.3 Communicating with the international research community

In addition to participating in local conferences in Switzerland, there has been an intense activity of the pilot partners in conferences abroad. For instance in July (3-8), 2016 at the World Planning Schools Congress in Rio, Brazil, Ileana Apostol gave two talks inspired by MAZI pilot research namely "Cooperative housing and living in Switzerland" and "DIY networking as a boundary object for transdisciplinary education." The latter was included in a panel on "Methods and methodologies" in planning, which stimulated very interesting conversations around a novel take on the "boundary object" concept, while the first talk has placed the topic of the MAZI pilot in international perspective through various grassroots examples presented in the panel of "Housing and Community Development." Some of these conversations have been included in the MAZI deliverable D3.2, and they make the subject of future scholarly publications.

Also in an interdisciplinary and international conference by the name "City Streets" organized by the Notre Dame University in Beirut, Lebanon, in November (9-11), 2016, Ileana was invited to give a talk in the panel "Streets: Urban diversity and social justice" that was the beginning of another MAZI pilot related draft article, for which more insights came with the occasion of the invited talk at the Nova Iskra in Belgrade, Serbia.

Recently in May 2017, Panayotis Antoniadis was invited to moderate a panel at the Conference on Commons in Thessaloniki, Greece (May 7), followed by a 20min interview included in a program of the national television (ERT3) called "Antidrastirio", broadcasted on May 25th and May 29th http://webtv.ert.gr/ert3/25me2017-antidrastirio-kina-ke-kinoniki-allilengya-ikonomia/

3.5 Dissemination of MAZI concept through the INURA network

At the 2016 INURA Conference in Bucharest, NetHood together with INURA Zurich Institute organized MAZI workshop "Tools for urban activism" on September 2, which had a follow up at the retreat in Sibiel (September 10). The aim of the workshop was to introduce DIY ICT technologies to participants in the INURA conference, and to explore ways of enabling urban activists to pursue their objectives with the support of such technologies. 40 participants attended the workshop, which featured a panel of nine activists followed by roundtable discussions, as well as an introductory demo to DIY networking technology and a half-day demo at the retreat. The event's website is at https://inura16.wordpress.com/mazi-workshop>. The INURA conference has been documented in detail in deliverable D3.6.

At MAZI Workshop in Bucharest, the Ministry of Space collective from Belgrade received a configured Raspberry Pi to be deployed during their urban actions contesting the Belgrade on Water project. Three months after, with the occasion of the NetHood talk at Nova Iskra, Panayotis explained to a larger local audience, many of whom are activists engaged in the struggle against the development of the Belgrade on Water project, what the advantages of DIY networking are and how a MAZI zone may be configured and deployed. The successful demo was much appreciated by the audience as well as by the NetHood team who is still quite moved when the MAZI zone deployment runs without problems.

Another aftermath of MAZI Workshop in Bucharest is the collaboration with the Zurich based project Wunderkammer, where the Hybrid Letterbox has been already experimented with during project events.

3.6 Instantiations of MAZI zones at various events and activities

By means of a Raspberry Pi equipped with some of the current MAZI toolkit software like the Etherpad or the Own/NextClowd for sharing documents and photographs, the Zurich team has deployed MAZI zones for testing in various occasions. For example, at the INURA retreat in Sibiel, the first day of individual talks that took place in



open air, the MAZI Raspberry Pi was placed in the middle of the group, to collect impressions and test users' interest. A similar test was done also in Zurich with the "Bio Internet" at the recent NeNa1 Utopoly Workshop (see Figure 15).

Currently such experiments developed into the Guestbook of the MAZI toolkit. Another instantiation was deployed while presenting the MAZI poster in Lucerne, to broadcast photographs taken during the morning sessions. And another example was used during the MAZI demo within the talk at Nova Iskra in Belgrade, to create a locally hosted forum on the MAZI etherpad, which could facilitate ad-hoc deliberations for organizing various civic and street happenings.



Figure 14: A MAZI zone at the INURA retreat in Sibiel, September 7-10, 2016



Figure 15: The MAZI zone at the Swiss Inter- and Transdisciplinary Day, November 7, 2016





Figure 16: The MAZI zone at the Nova Iskra in Belgrade, January 19, 2017



Figure 17: The MAZI zone by the name "Bio Internet" deployed by NeNa1's board member Thomas Raoseta at the NeNa1 Utopoly Workshop, May 20, 2017

3.7 Knowledge transfer and the CoHab Athens project

The Kraftwerk1 pilot is dedicated to the KNOWLEDGE framing as described in detail in the description of work. The rationale behind this specialization of this MAZI pilot to a single framing was the fact that members of cooperative housing projects like Kraftwerk1 already form strong communities that spend a lot of time in social, political and other common activities. This makes them reluctant to participate in "yet another community activity" especially when this is initiated from an EU project.



However, sharing knowledge with external actors toward the replication and expansion of this successful model is in general an objective that is always valid independently of the perceptions of the members of a cooperative regarding their own situation. It is also possible that the engagement in a process of reflecting of lessons learned can help also in the local collective awareness in ways that "explicit" processes cannot achieve, especially in such "experienced" communities. For this, DIY networking can play a key role.

But for this process to be successful it is important to frame the particular context that a knowledge transfer process will be situated. For this, the MAZI-team decided to engage early in the project interested researchers from Athens, whom had been participating at the INURA conference in Bucharest: Dimitra Siatitsa, an active member of INURA Athens, and Constantina Theodorou, an architect and activist in housing issues, at that time member of the initiative KOINO Athina (Common Athens). More specifically, in July 25-27, 2016, NetHood and INURA Zurich Institute organized a three-day nomadic workshop titled "Sharing ideas for sharing space", http://nethood.org/housing/zurich/, including 15 speakers, 2 roundtables, and 6 tours/visits of housing cooperatives: Klingenstrasse 23 * Wogeno (started 1984), Hellmi neu, Brauerstrasse 75 * Wogeno (started 1990), Das Dreieck (started 1996), Kalkbreite (started 2013), Mehr als Wohnen (started 2015), and of course Kraftwerk1.

During the workshop smaller and larger groups discussed about what is generic and what is context-specific in the conception, design and implementation of these cooperative housing and living projects in Zurich.

The goal was to stimulate local groups in Athens, like KOINO Athina and INURA Athens, to develop similar projects inspired from and adapted to the Greek reality. At the same time, this exchange was also an opportunity for self-reflection for the active participants in Zurich, potentially helping the existing projects to adjust to the changing landscape and requirements of future projects, similarly to the NeNa1 learning process from previous experiences with Kraftwerk1 and Kalkbreite.



Figure 18: Sharing ideas for sharing space: One of the guided tours at the Kraftwerk1's Hardturm settlement by Philipp Klaus (left) and one of the workshops on knowledge transfer at Kalkbreite (right)

The discussion then continued at the Greek Pavilion of the Venice Architecture Biennale with the #ThislsACo-op workshop "Co-housing practices. Building protocols for Athens", October 26-30, 2016. The workshop was co-organized by the MAZI project and the newly formed Co-Hab Athens team, including 16 speakers, 6 panel sessions, 2 parallel workshops, and one debriefing session. See: http://thisisaco-op.gr/en/events-press/events/34-co-housing-practices-inventing-prototypes-for-athens-26-28-30-october-venice.html

As described in section 4.2.3, these two workshops succeeded in their original goal and they did initiate a long-term process driven by CoHab Athens, which now includes in its members Dimitra Siatitsa and Tonia Ekaterini (president



of the association of Greek architects), and which has organized several workshops, panels, engaging in the process also the Exarcheia neighbourhood association to develop concrete action plans.

In Zurich, the participants in the different workshops co-created a simple etherpad document hosted on MAZI's demo server, http://demo.mazizone.eu:9001/p/zurich_housing_comparison, with a short classification of the different models developed in Zurich, which can become over time a very helpful resource both inside and outside Switzerland. Some of this material will be soon included in the platform http://o500.org.



4. Evaluation

4.1 Comparison with the other MAZI pilots

Figure 19 depicts the initial comparative table of MAZI pilots as included in MAZI DoW and whose updated view for the Kraftwerk1 pilot is included in Table 3.

Pilots/	OU/SPC	UdK/CG	NetHood/INURA	NU/UM
Variables	CreekNet	Prinzessinnengarten	Kraftwerk1	MakeSpace
Context	Urban neighbour-hood (1km radius)	Community garden at Berlin city core	Cooperative housing and living complex (~300 residents)	To be decided
Framing	Contact Information Discourse	Information Discourse	Knowledge	Contact Information Discourse Knowledge
Toolkit	Decision making P2P Shared storage	Content sharing	Knowledge production	Multiple modes
Actors	Pioneers Community champions	Community Neighbours Activists City officials	Community Catalyst	Artists Citizens
Duration	Long term Continuous	Long term Continuous	Long term Continuous	To be decided
Design process	Co-design workshops Liquid democracy Training	Co-design workshops Iterative prototyping	Deliberation	Critical Design Design Fictions Cultural Probes
Evaluation	Activity Content analysis Interviews Debriefing workshop	Activity Content analysis Interviews	Activity Interviews Continuous observation	Workshops Interviews
Phases	1. Community engagement 2. Implementation 3. Integration 4. Final trial	1. Framework co-design 2. Early prototyping 3. Information Base 4. Co-Creation of application 5. Synthesis & filtering 6. Public debate 7. Evaluation & dissemination	1.Observation 2.MAZI offering 3.Implementation and evaluation	I. Initiation and setup 2.Relationship building 3. Final Trial

Figure 19: The initial comparative table in the DoW

Pilot/Variables	NetHood/INURA Zurich Kraftwerk1
Context	Cooperative housing and living complex (~300 residents) Kraftwerk1, new housing cooperative NeNa1, Forum 5im5i for face-to-face interactions in the neighborhood and the Openki platform for online organization and face-to-face exchanges, group of initiative in Athens (Co-Hab), INURA coop initiative for networking



Framing	Information, Knowledge	
Toolkit	 Boundary object between the different initiatives Community mapping Synthesis of content Knowledge production Archiving knowledge/ shared storage Dissemination/Broadcasting 	
Actors	Community catalysts/organizers	
Duration	Long term/continuous	
Design process	Deliberations; Interdisciplinary structures for information sharing	
Evaluation	Activity; Participant Observation; Interviews; Surveys	
Phases	Following the phases described in the DoW with some adjustments to the development within the pilot	

 Table 3: Updated version of the criteria in Figure 19 for the Zurich Pilot

According to the advanced structure for comparisons proposed in deliverable D3.8, whose application to the Berlin and the London pilots is already documented in deliverable D3.6, Table 4 below displays the six principles of engaged research (6P's: Holliman et al. 2013) for the Kraftwerk1 pilot.

Principles and their Definition/Pilot		NetHood/INURA Zurich Kraftwerk1
Preparedness	identifying local contexts, understanding of the challenges to be faced, the researchers' preparations for dealing with these challenges	The Kraftwerk1 community and related initiatives including the new cooperative housing project NeNa1; challenges: cooperative members being saturated from extensive and intensive participatory practices; researchers became active members of these communities and initiated workshops on knowledge transfer independently from technology, on the one hand, and on the other hand brought attention to questions regarding the use of technology in cooperative housing projects.
Politics	understanding the local social and political contexts in which the research would be carried out	The 'young' cooperatives in Zurich are placed within a movement for sustainable city life of a society beyond work; it has reached wide agreement so to become a city policy, having citizens' and public authorities' support; the movement is exposed to the challenges that western democracies face in coping with diversity, having to provide for its representation, for the right to difference, and to integrate individual choices into collective decisions



		etc; thus enabling the organization of these processes is crucial
People	identifying the people that will be involved or affected by the work: the researchers, the community partners with whom are engaged and any other participants that may be affected	In the first phase of the pilot was focused especially on the people affected or engaged in the applied research including Philipp Klaus of INURA Zurich Institute. The team also created strong links with key actors of related initiatives like NeNa1, Wunderkammer, and Openki in Zurich and the CoHab initiative in Athens.
Purposes	clarifying the aims and objectives of the research from the perspective of MAZI, the participants involved and other stakeholders	Enabling information sharing between strangers; the role of ICTs and the MAZI toolkit in mediating the production of knowledge, documentation and storage of information on the topic of cooperative housing; developing user guidelines and structures for knowledge transfer; add network infrastructure and services in the agenda of cooperative housing projects as a commons.
Processes	pinning down the approach and the methods of data collection and techniques of analysis used to evaluate impacts	In Kraftwerk1 pilot MAZI couuld take advantage of the positioning of the pilot partners in the cooperative housing ecosystem and experiment with a somehow "reversed" participatory process in which the researchers participate actively in the activities of the community and eventually become part of it.
Performances	considering what was found and the extent to which this met the objectives of the research	Phase 1 has been completed (analyses of the Intranet) as well as the take off of related groups and initiatives such as Co-Hab and INURA coop initiative.

Table 4: The 6 Principles of Engaged Research for Zurich Pilot

4.2 Measurable impact

The activities of NetHood and INURA Zurich Institute in the context the MAZI pilot had significant impact in terms citizen engagement, connecting people and networking, such as reaching to 40 activists coming from over 10 countries who participated in the MAZI workshop at the 2016 INURA conference, or over 20 individual speakers who participated in the two knowledge transfer events organized in Zurich in July and in October 2016 at the Venice Architecture Biennale.

However, impact is more evident through the effort of external actors in engaging with the pilot's objectives in terms of financing invited talks and contributions to publications, and most important running independent related projects. A summary of such activities that provide measurable impact of the Kraftwerk1 pilot is given below.



4.2.1 Exposure of MAZI in local groups and communities

Within the INURA coop initiative and as an aftermath of the MAZI workshop at the 2016 INURA Conference, Panayotis Antoniadis and Ileana Apostol of NetHood were invited by the Nova Iskra in Belgrade, Serbia, to confere on January 19, 2017; the organizers' intention was to bring the perspective on DIY networking and cooperative housing within the studies of the commons. Therefore, NetHood's talk "The right to the hybrid city" in the course by the name "Studies on the Commons" opened up possibilities that follow up street protests toward claiming favorable action to influence the formulation of urban policies, the case in point being cooperative housing. In the context of the processes of developing cooperative housing in Zurich, Panayotis has presented the role of DIY technology, while Ileana has reflected upon the hybridity of space, particularly on the metaphor of the "hybrid sidewalk", and consequently upon the transformation of urban struggle and action by means of DIY networking technology.

Recently in May 2017, as an outcome of the interest raised by the MAZI project, Ileana Apostol was invited to give a talk on the MAZI pilot topic, and to moderate two related workshops on the role of digital technology in resourcing community resilience, at the EcoDA Symposium on "Open source urban resilience" in Sheffield, UK (25-26 May). The research focus in the EcoDA project is primarily on civic aspects of urban resilience, by investigating ways of scaling individual community resilience practices and exploring opportunities for using digital technologies to connect and amplify them through processes of commoning. Therefore, in the two days workshops at the symposium, the pilot partners explored the possibilities to enable citizens to build their own local networks, in ways that are respectful to their rights to privacy, difference, freedom of expression and self-determination. The EcoDA symposium was an opportunity for exchanging knowledge and best practices as well as for dissemination and networking.

4.2.2 Individuals engaged in the deployment of MAZI Zones

NeNa1 board member Thomas Raoseta came in close contact with the topic of the MAZI project through the translation in German of a book chapter written by Panayotis Antoniadis (see Section 4.2.4). Thomas is active since the 90s in various experiments with novel forms of co-living, and played a key role in many of them like being co-founder of Kalkbreite, while at the same time being an autodidact in software development, having worked professionally for various companies like SSR-Reisen (tour operator), Day Software (internet startup), and Roche Diagnostics.

Thomas is an ideal actor that can promote the ideas of MAZI. Having an engineering background and at the same time very active in the cooperative housing movement in Zurich, and especially on advocacy and dissemination like the curation of an exhibition on the Dreieck cooperative housing project titled "utopia turns into a role model" at Photobastei, Zurich. Indeed, he got very interested in the MAZI toolkit and deployed his own MAZI Zone titled "Bio-Internet" (see Figure 17) during a full day workshop titled Utopoly, also at Photobastei.

Having external actors experimenting with the MAZI toolkit in such an early stage of the project is an important achievement of the pilot.

4.2.3 External researchers and activists engaging in the Kraftwerk1 pilot process

Alexandros Papageorgiou is an Anthropologist enrolled in 2016 in the Department of History, Archaeology and Social Anthropology of the University of Thessaly, as a PhD candidate [http://www.ha.uth.gr/index.php?page=post-phdcandidates-search.list – in Greek].



The title of his thesis is: 'Collaborative networks in Athens today: new possibilities of coexistence through interlocal knowledge transfer' with supervisor Penelope Papailias (Associate Professor of Social Anthropology at the University of Thessaly). His research focuses on processes of knowledge transfer between collectivities from different countries in Europe and collectivities in Athens and on new forms of coexistence in the city through the action of these collaborative bottom-up initiatives, like the ones initiated by NetHood in the context of the MAZI project.

Papageorgiou perceived thus Nethood as an extremely pertinent actor-informant for his study, since it operates as a key actor in creating networks of knowledge exchange and sharing, employing a novel methodological approach on engaged participatory design.

In the context of this work, Alexandros took part at the 1st National Conference on Commons and Social and Solidarity Economy in Greece, organized by the Aristotle University of Thessaloniki between May 4th and 7th 2017. On May 5th, he presented his intervention under the title: 'Networks of knowledge sharing for the implementation of co-housing and collective ownership models in Athens' - https://commonsseauth.wordpress.com/program-in-english/. Right after the presentation he was approached by the journalist Panos Kasaris of the public TV network ERT3 and he gave an interview on cooperative housing for the TV program 'Antidrastirio' which was aired on May 25th - http://webtv.ert.gr/ert3/25me2017-antidrastirio-kina-ke-kinoniki-allilengya-ikonomia/ (min. 26:55 – 42:23 of the broadcast).

Co-Hab co-organized several events with Nethood and Inura during the past year after the #ThisIsACo-op event at the Venice Biennale (October 2016), including the presentation of their project at the Greek Association of Architects (February 2017), under the title: 'Collective housing & ownership in Greece: mission impossible?'

https://www.facebook.com/events/411043105900683/.

During the first year of research the Co-Hab team identified the following challenges related to housing in Athens:

- Housing Insecurity
- Unemployment and rising levels of poverty
- High taxation and rise of housing maintenance costs
- Degradation of the center of Athens
- Real estate speculation, transition from 'small' to 'big property'
- High percentage of vacant, inactive property that deteriorates, consequently it cannot be used, it ages and renovation costs would be very high.
- Lack of social welfare, of funding and support from the State

One of the goals of the Co-Hab initiative is to discuss the problems that the city faces and to explore the possibility to create one or more models of co-housing in Athens. At first, the central idea was that the model of co-ownership of a building and of property generally can become a tool against speculation, gentrification and commodification of urban space. It is a known fact that in Greece the fragmentation of ownership is basically a problem for the communication between owners (who are often relatives) and for the decisions that need to be taken, however this characteristic constitutes an obstacle for speculation as well, it has slowed down predatory tendencies. In cases of other European cities, like Leipzig or Zurich, a similar model of co-ownership has been used by anti-gentrification housing projects (like the Mietshauser Syndikat), precisely because the complexity of buying procedures of a building by many individuals can protect it from a future sale and a return to the real estate market.

So, at the various meetings the members of Co-Hab presented facets of Greek reality (empty buildings, property auctions, fragmented ownership) to members of initiatives from abroad who have long been involved in cooperative housing practices, in order for them to suggest possible ways forward, based on their own experience.

The conclusion was that two possible models could be examined as pilot projects for Athens:



- 1. **Cohesive model** According to this model the cooperative would acquire an entire building or city bloc (especially for the latter it is difficult for the agreement of all participants to be achieved).
- 2. Dispersed model –According to the dispersed model, many apartments in different buildings of the same neighborhood would be acquired. This idea has been put forward because it is hard to encounter an entire vacant building on sale. Besides, this kind of property is aimed also by foreign investment funds. The apartments would have to be in physical proximity, e.g. around a square. Apart from residences, some of the apartments could house common spaces, like kindergarten, office space, space for activities or care for the elderly and/or could be rented out for the coverage of expenses, preferably to cooperative business activity.

The discussion quickly reached the point of talking about the budget, sources of funding, going beyond legal obstacles and other final stage issues, however the human force to support the endeavor did not yet exist.

Several differences with foreign contexts and problems of implementation were identified:

- No 'tradition' in similar practices
- Insecurity, lack of trust
- The idea of co-ownership is unattractive in Greece,

As far as the dispersed model is concerned, management of the building is not possible

Co-Hab is a voluntary group, which raises an issue of commitment. They need to enlarge the circle of people who would be actively involved. How can they do it?

Does the collective subject that would enable this initiative to materialize in Greece exist?

Taking all the above into account, the team decided to take a step back and work more in depth and with a long-term perspective. There is no ready solution, while obstacles abound. Two points have been identified as crucial requirements for a successful endeavor of collective ownership co-housing: the *education on the collective management of a space* and the *establishment of trust relationships*.

Planned next steps as a result of lessons learned include the following:

- · Investigating the effective legal framework in order to come up with suggestions for its improvement
- · Organizing workshops in neighborhoods, spreading the idea and discussing it
- Gradually co-creating a realistic first model, economically viable and legally shielded.
- Investing in time, in the context of an experimental process of coexistence

As mentioned above regarding the Co-Hab initiative, one of their objectives is to explore the potentials and limits of the existing institutional framework and to formulate specific proposals that could be adopted under current circumstances. Moreover, the dissemination of the idea of collective housing constitutes an integral part of this research effort and it is aimed to inform and acquaint the public at large with associated practices and methods. Parallel to the research on existing cases from abroad, the next steps of the initiative include workshops in neighborhoods and in situ processing of examples that could address local problems. Such schemes should achieve balance between the long-term processes that are required for the successful creation of a collaborative project – all the more so in the case of cooperative housing – on the one hand, and the urgency to develop alternatives for the multiple needs that have emerged during the crisis in Greece, on the other.

In the beginning of June 2017 (9-11th), the 4th European Social Solidarity Economy Congress 'UniverSSE 2017' took place in Athens and the Co-Hab team participated with two events, which were covered by the media platform "The press project" https://cohabathens.com/2017/06/09/an-article-at-press-project-about-our-participation-at-universse-2017/>. During the first event, 'Collective forms of housing and ownership: Experiences and Concerns'



https://universse2017.org/en/program/#s1618>, the actions of the initiative so far were briefly presented by Dimitra Siatitsa, while two speakers from abroad also shared their experience.



Figure 20: Thomas Dawance presenting the Community Land Trust model at the Universse 2017 panel titled 'Collective forms of housing and ownership: Experiences and Concerns' and moderated by Panayotis Antoniadis (NetHood)

Thomas Dawance presented the work of the Community Land Trust of Brussels (CLTB), a non-profit institution that implements an alternative model of land use and housing as an answer to the housing crisis that affects the city since 2000. Javier Buron, manager of housing issues for the Municipality of Barcelona then took the floor via a skype connection and described the problems that the city faces in relation to housing, as well as the policies that the Municipality implements to fight these problems, within the framework of social housing.

Members of Co-Hab Tonia Katerini and Konstantina Theodorou concluded the cycle of interventions; Katerini analyzed the issue of the growing housing precarity in Greece and Theodorou presented possible scenarios toward the implementation of a cooperative model of ownership/housing for the city of Athens, based on research conducted over the past year. It is important to note that the addition of Tonia Katerini, chair of the administrative board of the Greek Association of Architects and member of the 'Stop Auctions' movement, was essential for the team, as she provides expertise on issues related to the legal framework of housing and land use, especially concerning evictions and property auctions.

After an interesting round of Q&A, the discussion would resume the following day, at the second event; a workshop that Co-Hab organized in cooperation with the Exarheia Residents' Initiative https://universse2017.org/en/program/#k1214. This workshop was a first preparatory step toward the realization of a series of workshop sessions that will take place with the Exarheia Residents' Initiative, starting next October and continuing throughout the next year, during which participants will work on one (or more) pilot proposal(s) for the neighbourhood, gradually leading to the creation of a housing/neighborhood cooperative.

In a vibrant discussion whose goal was to explore local needs and desires, many different and often contrasting needs were expressed, among which the shared concern about vacant buildings or the future of neighbourhoods



and of life in the city center - commodification, gentrification, depopulation and transformation into a neighbourhood destined mainly for amusement and nightlife -, while the request for a paradigm shift and the turn toward more collective solutions was conveyed by many voices. It was a fruitful and promising conversation. The participants seemed eager to share their thoughts and opinions; they acknowledged the complexity of the needs of the neighbourhood and the necessity to understand them and they expressed various proposals for positive action that can be taken in the future.

Nevertheless, the aim of the initiative is not to limit the field of experimentation in Exarheia, but to help spread the idea so that more local communities can gather to discuss their special needs and the ways in which they can address these needs. To this end, members of Co-Hab have already contacted the residents' assemblies in two other neighbourhoods of Athens, with the prospect of starting workshops there as well, from October onwards. As in the case of Exarheia or any other locality, paradigms from abroad will be shared to operate as sources of inspiration, but the different groups of residents will be encouraged to consider their own conditions and reflect on solutions that are uniquely applicable to their own case.

4.2.4 The "Different City" Book

Through the engagement of NetHood in different activities inside and outside Kraftwerk1, Panayotis Antoniadis came in close contact with Hans Widmer (aka P.M.), author of the book bolo'bolo which played a key role in the development of the "young" cooperative housing movement in Zurich (see section 3.1.3). Panayotis developed the web site http://o500.org as a dissemination project of Neustart Schweiz in English, which is expected to play a key role also in the knowledge transfer process initiated by the MAZI pilot.

Through this collaboration Panayotis was invited to write a book chapter in a new book that has the ambition to develop key concepts for the future of sustainable living in the city based on the commons. More specifically, the book project titled "Die Andere Stadt" (The Different City), edited by Hans Widmer with 8 co-authors, and funded by the Stiftung Sergio Agustoni (Zurich), is expected to be published on August 2017 and will be freely distributed online in addition to 2000 free hard copies. The book chapter authored by Panayotis Antoniadis is titled "The Organic Internet: Building Communications Networks from the Grassroots" and includes key concepts around the MAZI project. It is translated in German by Thomas Raoseta, board member of NeNa1, who got very interested in the MAZI project and as described above has already started experimenting with the MAZI toolkit.

The inclusion of a chapter on DIY networking in such a key publication for the cooperative movement in Zurich will facilitate significantly our future efforts to engage members of different cooperative housing project with the MAZI toolkit. Notably, the book presentation will take place at Kraftwerk1's Brasserie Bernoulli, an ideal opportunity to disseminate the objectives of the MAZI pilot in Zurich and invite people to become part of it.



5. Discussion and Outlook

After summarizing the key activities and how they have fulfilled the promises of the first phase, in this section a brief overview of the future outlook, in terms of what actions are undertaken in the next phases is presented.

The first "observation phase" of the Kraftwerk1 pilot took place in parallel with a much more intense than anticipated participation of the pilot partners in different local initiatives like NeNa1 and 5im5i, and the initiative of the knowledge transfer process with Greek organizations like CoHab Athens and INURA Athens. The pilot partners adapted to important opportunities to initiate the anticipated knowledge exchange process between Zurich and Athens much earlier than expected, due to an opportunity to organize a key event at the 2016 Venice Architecture Biennale. Similar opportunities appeared for active participation in organizations like the Forum 5im5i, NeNa1 housing cooperative, and the Wunderkammer project, which directed the attention to those activities rather than the passive observation of the online life in Kraftwerk1.

This turn in the pilot development allows to advance the process in all three "threads" in parallel, namely hybrid space design at Kraftwerk1 (1), knowledge exchange and networking in Zurich (2) and in Athens (3), and allow for more informed decisions regarding the deployment of MAZI toolkit.

Although the pilot team undertakes applied research in Kraftwerk1, mainly the pilot refers neither to a specific urban location like in the case of the NAk in Prinzessinnengarten, nor to a certain geographical area such as the case of Creeknet along the Deptford Creek. To begin with, only the Kraftwerk1 cooperative has developed already three settlements spread around in the city and in the outskirts of Zurich. The pilot deals rather with a movement promoting sustainable urban lifestyle, that has taken off more than three decades ago with the intention to bring into action the ideas emerged during the emancipation of youth in Zurich, and has materialized in various actions (see map in Section 2). Thus the challenge of the future steps is to develop a manner of analysing and intervening in an already networked environment.

Note that the Zurich pilot was scheduled to start after the Berlin and London pilots, in order to integrate the initial lessons learned through these two first pilots. As it seems so far, the development of these two pilots converge toward the networked framework as well. Based on the team's first hand observations through the Berlin and London workshop, but also additional visits during the Transmediale festival, the Deptford workshop, and interactions during the INURA conference, the most important lessons learned from these two MAZI pilots can summarized as follows. On the one hand, in Berlin, it proved to be a successful strategy to present technology to urban activists as a "contested" space, subject to various power games and present MAZI toolkit as a means to experiment, learn, and demystify technology, as a first step toward claiming the participants rights to the internet. Then it was communities coming to the Berlin team and asking for support rather than the opposite. The participation in key public events in the city like Transmediale and re:publica helped to engage communities without "chasing" them. On the other hand, in London, the communities are much more diverse and there is much less of an already prominent "activism" attitude, with some exceptions of course. Then the successful strategy in this case was to take a step back and focus on the building of the community around key challenges faced in this district.

An important lesson from the first phase of the pilot in Zurich is that local communities should better be accessed not as potential users of the technology but rather researchers may engage in their activities and genuinely explore the local needs and understand to what extent technological approaches can provide solutions to real problems.

Thus in Kraftwerk1 the pilot team follows a similar "slow start" strategy with slightly different characteristics due to the specific context. This strategy has been also a positive side effect of the fact that the MAZI toolkit reaches its first mature stage, version 1.8, at the time of writing of the first version of this deliverable (D2.7), allowing for the very first time non-technology-savvy people to set-up their own local networks. Attempting to promote this



technology before reaching this state in communities already stressed from the numerous participatory tasks would risk to lose the interest of people too early in the process.

During the next phase of the pilot, MAZI offering (M18-24), the next step will take place and concrete propositions for MAZI Zones, with or without the Hybrid Letterbox, will be discussed in the Kraftwerk1 technology group with the goal to have a stable deployment by M24 (Phase 3 – Implementation and evaluation).



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Appendix A. Evaluation of Kraftwerk1 intranet/portal, mein.kraftwerk1.ch

The idea of the evaluation of Kraftwerk1's intranet is to see how familiar the users are with such a platform and how they use it. The way people use the platform should also lead to improvements of the platform

The evaluation has been executed including only the inhabitants of the Hardturm unit of the cooperative Kraftwerk1 which is also the pilot project of the MAZI project.

The evaluation has two parts: 1st an analysis of the features and functionalities of the platform and 2nd a survey to get the users' opinions and behaviour.

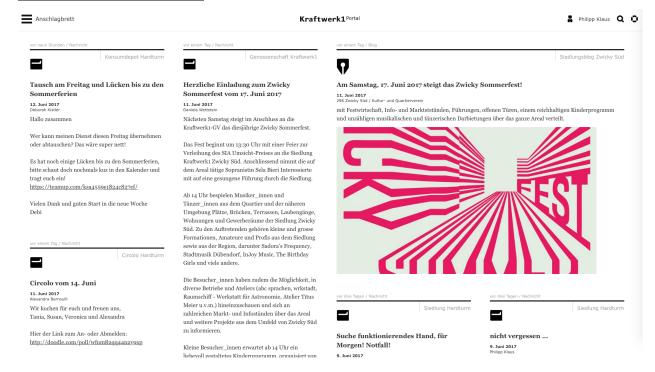
1) mein.kraftwerk1.ch - Analysis and Description

The intranet of the Kraftwerk1 cooperative (mein.kraftwerk1.ch) went online in summer 2015. It is a platform accessible only to cooperative members, more than 1000 in total. About 800 of them live in three settlements called

- Hardturm
- Heizenholz
- · Zwicky-Süd.

The public Home page of Kraftwerk1 is www.kraftwerk1.ch

Entry page of mein.kraftwerk1.ch

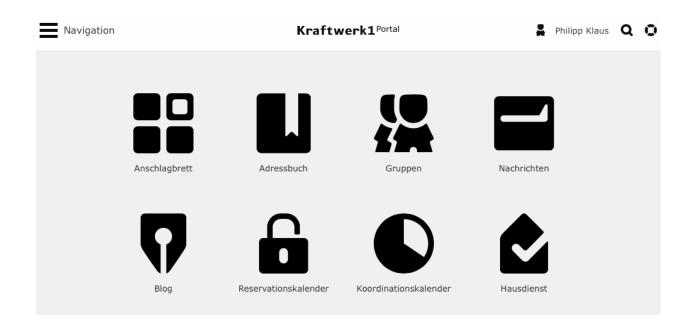




Menupoints of mein.kraftwerk1.ch

The main menupoints are:

- Anschlagbrett / Pinboard: On the pinboard appear all news, messages sent through all the groups members are registered for and blogentries.
- Adressbuch / Contacts: A list of all contacts of the members of the cooperative.
- Gruppen / groups: see below.
- Nachrichten / news, messages: The News are mostly used for the communication with in Groups.
- Blog / blog: Every settlement has its own blog. but, everybody can read or post. Topics are very diverse.
 Anouncements of concerts, devlopment of turnover in the own shop, offering beds, looking for driver's lessons, complaints about littering etc.
- Reservationskalender / reservation calendar: Reservations can be done for Community Room, Guestroom, Meeting Room, Tent.
- Koordinationskalender / coordinatory agenda: Agenda to register for instance when people work in the shop (Konsumdepot) or participate in the cooking clubs (Circolo in Hardturm and Heizenholz). Actually the agenda is not used but a doodle is sent out to the Group members. The Mittagstisch Heizenholz (cooking lunch) is in use and seems woking well.
- Faciltiy Service

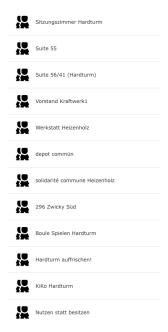


Pinboard	Addresses	Groups	Messages
Blog	Reservation Calendar	Coordination Calendar	Facility service



<u>Gruppen / Groups:</u> Some groups are compulsory in order the administration can inform members of the cooperative or tenants of each of the three settlements. Groups are subunits of the platform in order people can communicate without spoiling others with their specific exchange topics.

At the moment (June 2017) there are 124 Groups. Below is a screenshot of a part of the listed groups. Besides the Groups "All members of the cooperative Kraftwerk1", "inhabitants of Hardturm", inhabitants of Heizenholz", inhabitants of Zwicky-Sued" there are Groups that gather around collaboration: for instance, the board of Kraftwerk1, the meeting room in Hardturm, the working groups responsible for the shops in the settlements. Sharing interests: 'use instead of own' and freetime (playing boule). But also community living units have their groups (Sutie X/Y) and lobby groups (children's commission).



Observations on activity on the platform

All together there is not very much participation in the intranet. An indicator might also be that only 10% avatars are set, may be even less.

On the blog "Feedback zum Portal" (Feedback on the Portal) feedbacks come exclusively from three persons and the coordinator. From September 2016 people were asked to write an email instead of using the blog.

On the blog Zwicky is much more active than Hardturm	
Siedlungsblog Zwicky: 142 posts	
Siedlungsblog Hardturm: 13 posts	
Siedlungsblog Heizenholz: 17 posts (much less inhabitants)	
Active on platform May 19, 2017	

Thesis: communication in everyday life and organisational matters are better established in Hardturm than Zwicky. Zwicky has still to set up a lot, it is young. But Heizenholz is smaller and yet has even more posts than Hardturm.



In the past months, activity on the intranet seems having increased.

Observations on difficulties

Handling:

- Anschlagbrett (Pinboard)
- Nachrichten (Messages)
- Blog (Blog)

These three menupoints do not differ in an obvious way. It is not very clear where to post your message.

Groups: Sending a message to the admin: the button to "send" (abschicken) is not active

If you get an invitation for a group by mail you can not click on a link leading to the group on the portal.

2) The Users' Views - a Survey in Kraftwerk1 Hardturm

A questionnaire was set up by the project team INURA Zürich Institut and nethood in May 2017. The questionnaire has two versions with the same contents: paper and online. The online version was announced with a link to the FLOSS survey tool "LimeQuery.org" as a message on the Kraftwerk1 intranet to the group "Siedlung Krafwerk1 Hardturm" which are tenants and office renters in the settlement (Siedlung). The group contains 175 members, a number which represents approximately 80% of the residents and office renters.

This was a major reason to have also a paper version. The paper version was printed on a A3 format, folded and displayed in the common room called "Pantoffelbar". Also, a letterbox was installed on the spot. In the evening (18-20h) of May 30, the launch of the survey, Ileana Apostol, Panayotis Antoniadis and Philipp Klaus were present to talk with the people passing by, answer questions and animating to participate.

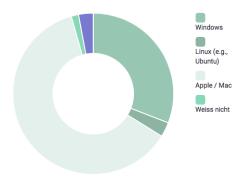
June 12, 2017: The current response to the survey is 81 answers, 73 of them online, 8 on paper. 16 have not fully filled in the questionnaire.

The average age of the respondents is 48, the median 49.

Some preliminary results

Computer knowledge

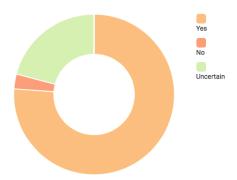
Ca. 90% know what system their computer is. 56% use Apple, 29% Windows, 3% Linux (e.g. Ubuntu)





About the platform

- 1 respondent says not knowing mein.kraftwerk1.ch
- 2 persons think the platform is not necessary
- 70% think it is necessary
- The others are uncertain



Using different menu points

The questions for the menu points use were about active or passive use such as "Reading the Blog". The picture is that more people use the platform menu points passively than actively.

The hitlist shows the Reservation Calender as the most used function, Posting on blog the least.

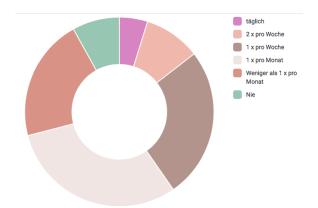
Hitlist

	YES	NO
Reservation Calendar	63%	16%
Addresses	59%	22%
Groups	43%	25%
Reading the pinboard	38%	38%
Coordination Calendar	29%	38%
Reading blog	22%	56%
Post on the pinboard	19%	51%
Posting blog	5%	73%

Frequency of platform use

35% use the platform at least once a week. 7% say they never use it.





Getting Emails through the platform

- 1 person indicates never getting emails from the secretary/office, 3 are uncertain. 68% think these emails are important or informative.
- 11 persons indicate never getting emails from the secretary/office, 6 are uncertain. 40% think these emails are important or informative. 16% think they are a waste of time and 4% annoying.

Platform and living together

- 52% say the platform is helpful for life in Kraftwerk1
- 14% say the platform is not helpful for life in Kraftwerk1
- 18% are uncertain
- 24% say the platform enhances encounters and contacts on a personal level
- 42% say the platform does not enhance encounters and contacts on a personal level
- 32% are uncertain

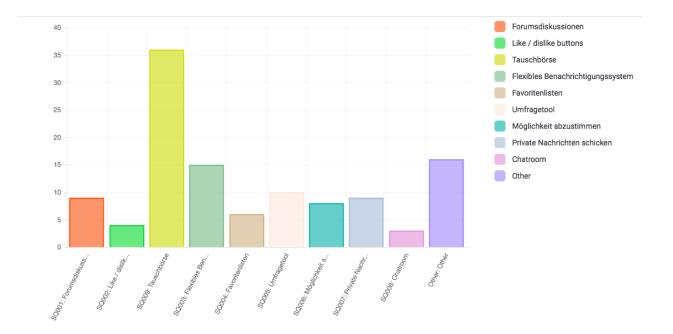
Social Media

- 38% use Facebook
- 14% use Twitter
- 4% use Instagram
- 32% use other social media

Desired additional features and functionalities

- 13% Forum
- 5% Like-/dislike buttons
- 53% Exchange of goods and services platform
- 22%Flexible notification system
- 8% List of favourites
- 10% Opinion survey tool
- 9% Option to vote
- 10% Send private messages
- 4% Chatroom
- 23% Other







APPENDIX B - Hybrid letterbox

MAZI-Pilot Kraftwerk1, Zurich

Notes on the Hybrid Letterbox (HYBLBOX - hlb) by Philipp Klaus

How to use the letterbox for social interaction and processes?

STARTING QUESTIONS

- how to improve living together?
- how to improve people's involvement?
- how to improve social processes?
- how to improve participatory processes?
- How to mobilise people to take over tasks for the community?

THESIS

The Hyblbox is a powerful tool for communities. Its successful deployment needs the development of guidelines – a toolkit.

50 ways to use the Hyblbox

The development of a toolkit for the use of the hlb needs a lot of testing in different situations and constant obeservation of each step, every action, all the impacts

Settings and situations for hlb deployment

for GAMES

Quiz: A person or a groups draws/sketches something or writes a question on a card. The other group or persons guess what it is or answer the question. May be through devices.

- who has the correct answer? who is quickest?
- everybody writes or draws an answer on a card within 1 min. then everybody's card is inserted in the hlb and the answers appear on the screen

Situation

Small groups 3-15 persons. With projection.

as OPINION/IDEA/WISH/FEELING COLLECTOR (Survey)

what do you think about?

Situation

Individually: people walk into the Konsumdepot and are asked their opinion or wishes for the assortment, opening hours, other. Projection not needed.

Small group: groups work on ideas and share it through the hlb. With projection.

as DISCUSSION FACILITATOR

Small group: sharing ideas in a group. Workshop situation. 5-10 persons. Insert a card and explaining the idea or opinion. Next person inserting a card and widening the topic or opposing the first and so on.



Assembly: as in the small group but needs more moderation

as TOOL for Decision Making

- Opinions / proposals to vote about are displayed on screen.
- Compare, evaluate... Use cards or devices (Attention moderation when using devices... May be switch off moderation).
- People can vote through their devices anonymously.

as TOOL in PLANNING PROCESSES

Situation

Example: A square in a city is planned to be upgraded. With projection.

- Assembly: people come together to discuss and develop changes
- What do you like about the square? cards
- What do you not like about the square? cards
- What is missing? cards
- What do you wish/what are your ideas? cards
- Cards with plan of the square people can draw on them
- display all cards
- discussion what are the differences/similiarities etc.
- new ideas