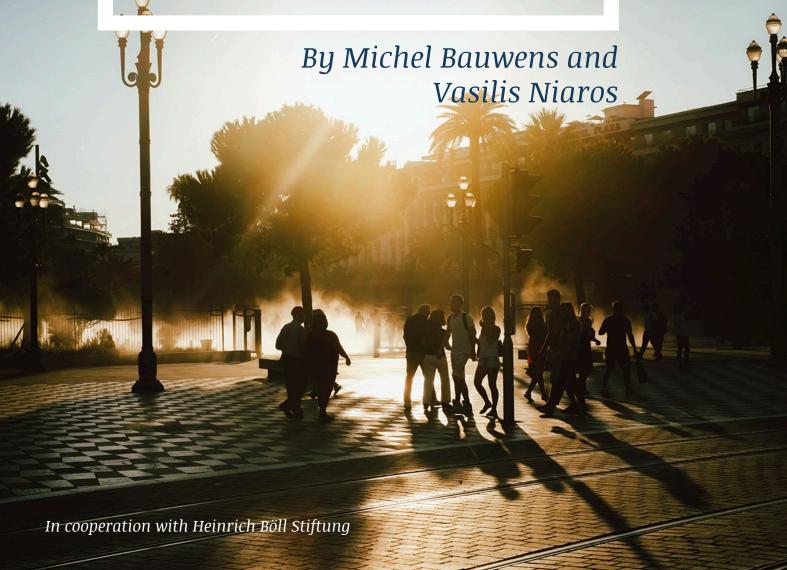
Changing Societies through Urban Commons Transitions



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Executive Summary

This report examines the re-emergence of the urban commons as both a bottom-up emergence by citizens/commoners and a radical municipal administrative configuration. Starting with an exploration of the relationship between cities and the commons, with a particular focus on the recent revival and growth of urban commons, we attempt to answer the question of why urban commons are so crucial for a social-ecological transition. Then we review grassroots initiatives for urban commons transitions both in the global north and south, but with specific attention towards the municipal coalitions of Barcelona, Bologna, Naples, Frome and Ghent. As a conclusion we propose an institutional framework for urban commons transitions. We look to answer the following questions: i) what can cities do to respond to the new demands of citizens as commoners; ii) what their role may be in facilitating a social-ecological transition; and iii) what institutional adaptations would favour such a role.

Chapter 1

The Centrality of Urban Commons in the Social-Ecological Transition

In the context of this report, the commons are viewed as a shared resource, which is co-owned and/or co-governed by its users and/or stakeholder communities, according to its own rules and norms. It is therefore a combination of:

- an 'object' of cooperation, or resource, which is shared or pooled;
- an activity, i.e, commoning as the maintenance and co-production of that resource; and
- a mode of governance, the way decisions are made to protect the resource and allocate usage, which is related to property formats.

Defined in such a manner it is clearly distinguishable from both the private and public/state forms of managing and owning resources. Commons can be found in every social arrangement, in every region and time period. This wider framework allows us to see the re-emergence of urban commons in our particular historical conjuncture.

To begin with, tribal societies as well as the class-based societies that emerged before capitalism have relatively strong commons, and they are essentially the natural commons. They co-exist with the more organic culturally inherited commons, such as folk knowledge. These are social systems that do not systematically separate people from their means of livelihood.

With the emergence and evolution of capitalism and the market system we see the second form of commons becoming important, i.e. the social commons. When market-based capitalism becomes dominant, the lives of the workers become very precarious, since they are now divorced from the means of livelihood. This creates the necessity for the generalization of this new form of commons, distinct from natural resources, which are essentially aimed at mutualization of risk and strengthening the collective power of the workers.

Since the emergence of the internet, and especially since the invention of the web, we see the birth and rapid evolution of a third type of commons: the knowledge commons. Distributed computer networks allow for the generalisation of peer to peer dynamics, i.e. open contributory systems where peers are free to join in the creation of shared knowledge resources, such as open knowledge, free software and shared designs. But we should not forget that knowledge is also a representation of material reality, and thus, the emergence of knowledge commons is bound to have an important effect on the modes of production and distribution. We would then emit the hypothesis that this is the phase we have reached today, i.e. the 'phygital' phase in which we see the increased intertwining of 'digital' (i.e. knowledge) and 'physical'.

The first locations of this intertwining are the territorial commons and the urban commons. Urban commons are the locus where digital knowledge and culture, and the material re-organization of a post-capitalist mode of exchange and production, converge into new ways of organizing provisioning systems where citizens are 'commonifying' the infrastructure needed for this transition.

We believe that cities are becoming a crucial transnational governance structure in the current conjuncture. It is clear that urbanisation is a very strong trend in the demographic organization of our world. The urban commons offer challenges for the actors and institutions within the city context in the following ways:

i) a contributory democracy is a challenge to representative democracy: Since the French Revolution, our legal and political system has ignored the commons, which had been radically enclosed by capitalism, and our institutional systems are largely based on the private-public dichotomy. The emergence of contributory communities around the commons is a challenge to the existing system. Citizens and their associations are making a claim to govern a resource 'according to their own rules and norms', and as commons, outside of the public-private dichotomy;

ii) a generative economy is a challenge to market power: Capitalism was born with the enclosures of the English and Scottish countryside, which were previously commons, and has thus been associated as a system that is hostile to commons. Generally, competitiveness often requires extractive practices towards nature and people. The re-emergence of urban commons requires a generative economy for its further health and expansion, which succeeds in creating meaningful livelihoods that are compatible with the natural commons and the survivability of humans on the planet; and

iii) the commons is a challenge to traditional civil society organisations: With the emergence of the labour movement in the 19th century, and with the wave of nonprofits and NGOs since the sixties, civil society has been organized. But the commons creates a different type of social organisation. Unlike the 'scarcity' view that motivates traditional NGOs, where the logic is how to direct scarce resources to solve a particular problem, the new logic is one of 'abundance', i.e. platforms are built that allow people to direct their energy towards collective problem-solving.

Chapter 2

Recent Developments in Urban Commons Transitions

The existence of sophisticated urban commons policies that facilitate local initiatives in the Global North is evident. Many cities in the western/northern world have taken turns towards participatory, sharing and commonsoriented policies. However, there is an increasing number of integrated citizen coalitions that operate in cities with little or no support from local authorities. These projects are multi-year, multi-stakeholder, and integrative. Such projects are very careful in defining their inner governance and relations with external parties, such as governments and businesses, to avoid being coopted or captured by them. Quite a few of them are struggling to adapt the proper governance model, between 'horizontalist' aspirations and 'vertical' needs for institutionalisation. Most projects are now moving to poly-centric

governance models. Whether bottom-up or top-down, all projects include participatory processes, which points to a deep cultural shift. In addition, local initiatives in the Global North have a strong interest in both social and ecological sustainability.

Contrary to the case of Global North, cooperation between local initiatives and governmental institutions, especially at the national level, is problematic for nearly all projects in Global South. On the one hand, the indifference of the authorities is evident, even if a project is successful and has a positive impact on the city. At issue here is the inability of governmental personnel to understand the logic of commoning, especially when it is 'extra-institutional' i.e. happening outside the sphere of both government, business, as well as 'classic' NGOs. Further, the majority of the projects in Global South are 'integrative', meaning that they are not 'one issue' projects that focus on one dimension, but they have holistic visions of both the problem and the methods needed to overcome them. Community integration and collective intelligence is balanced and integrated with individual 'passionate' contributions.

This report explores cases of city councils that offer alternatives to the incumbent municipal form. The aim is not to be all inclusive but rather to explore the different approaches of city councils that are aligned with the proliferation of the commons and facilitate citizen participation in citymaking. The cases chosen in this review are not random but represent different logics at work that cities can choose from; they are not mutually exclusive, but rather complementary.

Barcelona is significant because it is the expression of a new radical municipalism that seeks to bypass the current limitations of the nation-state and has a majority political coalition and movement, En Comú, that refers explicitly to the commons. It illustrates how movement activists can work with existing political parties to create new platforms that foster greater participation in governance. Bologna is the paradigmatic case for developing new institutional processes for public-commons partnerships. Through this case, it is illustrated that new kinds of experimentalist and adaptive governance and legal tools are needed to allow citizens and other actors to enter a co-design processes for the city. Naples is a more radical version, explicitly catering for commons-based occupations and claims on public spaces. Milan presents a version less radical and more mainstream practice of the 'integrated sharing city', which has the merit of seeing the various forms of mutualization of infrastructure, mainly collaborative consumption,

as a key strategic development for any city. The case of Frome illustrates how local councils can play a key role in enabling communities to increase their resilience and face their challenges, while it is not following the political agendas of a party since a coalition of civic forces has ousted traditional political representation. Last but not least, Ghent is the first attempt to craft an entire urban commons focused transition plan on the city level.

Ghent is not an isolated case of course. The developments we have witnessed there are an echo of what has happened in other European, and global cities. We propose new forms of public-commons partnerships, and the commonification of public services that address the weaknesses observed and seek to facilitate a shift from cities having urban commons, to seeing the 'city as a commons'.

Chapter 3

Towards a Coherent Institutional Design for Public-Commons Partnerships

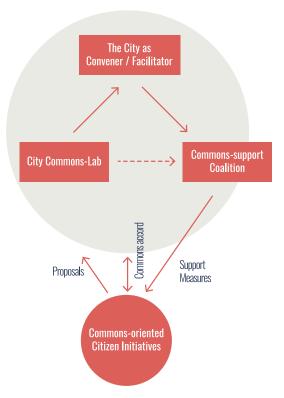
Thinking of social and political change in terms of a commons transition strategy requires a profound rethink of our existing institutional mix, and a somewhat new vocabulary. This new system follows a new logic:

- It puts the commons, and not the market, at its center, and civic society becomes the locus of the institutions of the commons. All inhabitants are considered to be productive commoners, co-constructing the various commons that fit their passions, skillsets and needs;
- The market is transformed towards a generative market, which serves the accumulation of the common, not the accumulation of capital; or alternatively, where the accumulation of capital directly serves the accumulation of the commons; and
- The state or common good institutions, such as the city and its institutions, are seen as facilitating mechanisms to create the right public frameworks for individual and social autonomy. They enable and facilitate commons-friendly infrastructures. We have called this the Partner State model and can speak of the Partner City as the equivalent on the scale of the urban.

But how do we get from the current market state and market city configurations, to commons-centric institutions? We propose a strategy in three phases:

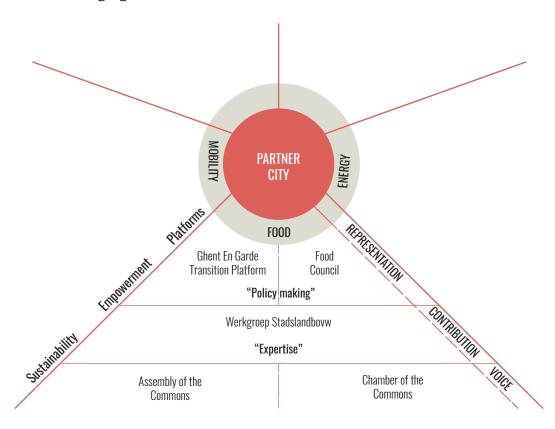
- The first phase is the emergence and formation of alternative commonsbased seed forms that solve the systemic issues of the current dominant political economy.
- The second phase is a regulatory and institutional phase, in which the right frameworks are put in place.
- The creation of the proper regulatory support and new institutional design, creates the basis for the third phase, i.e. the normalization of the new practices from the margins to the new normal.

The following figure shows the basic collaboration process between commoners and the public good institutions of the 'partner city'.



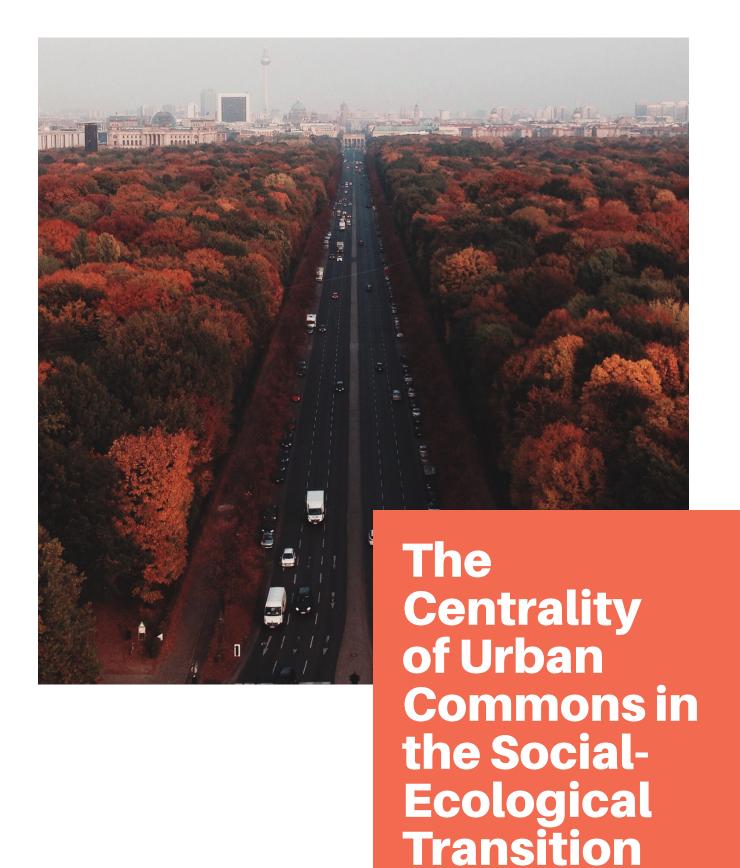
As we can see, commons initiatives can forward their proposals and need for support to a City Lab, which prepares a 'Commons Accord' between the city and the commons initiative, modeled after the Bologna Regulation for the Care and Regeneration of the Urban Commons. Based on this contract, the city setsup specific support alliances which combine the commoners and civil society organisations, the city itself, and the generative private sector, in order to organize support flows.

This first institutional arrangement described here allows for permanent ad hoc adaptations and the organization of supportive frameworks to enable more support for the common-based initiatives. But just as importantly, this support needs to be strategized in the context of the necessary socio-ecological transitions, which is the purpose of the second set of proposals, as outlined in the following figure:



This figure describes a cross-sector institutional infrastructure for commons policy-making and support, divided in 'transitional platforms" or as we call them on the figure, 'Sustainability Empowerment Platforms'. The model comes from the existing practice around the food transition, which is far from perfect and has its problems, but nevertheless has in our opinion the core institutional logic that can lead to more successful outcomes in the future.

With this, we conclude the minimal generic structures that we believe a Partner City needs to support a transition towards commons-based civic and economic forms can be integrated in democratic structures of representation, enriching it and complementing it, while stimulating the individual and collective autonomy of its citizens organized as commoners.



1. The Centrality of Urban Commons in the Social-Ecological Transition

During the spring of 2017, Michel Bauwens of the P2P Foundation, as lead researcher, in collaboration with Yurek Onzia, as project coordinator, and with the assistance of Vasilis Niaros, researcher at the P2P Lab, undertook a historical first: the crafting of a urban commons focused transition plan for the city of Ghent in the Flanders, Belgium (Bauwens & Onzia, 2017).

The very fact that this occurred warrants some explanation, centering around two questions:

- Why do city politicians and administrators see fit to focus on the commons today, and not just the private or public sector, as was customary?
- Why is the city so crucial today in the context of social-ecological transitions, and not the nation-state or the international level?

1.1. Understanding the global conjuncture in which urban commons emerge

Placing the re-emergence of urban commons in a 'material' historical context

In the context of this report, we define the commons as a shared resource, which is co-owned and/or co-governed by its users and/or stakeholder communities, according to its own rules and norms. It is therefore a combination of:

- an 'object' of cooperation, or resource, which is shared or pooled;
- an activity, i.e, *commoning* as the maintenance and co-production of that resource; and
- a mode of governance, the way decisions are made to protect the resource and allocate usage (and which is related to the modes of property).

Defined in such a manner it is clearly distinguishable from both the private and public/state forms of managing and owning resources. It is also useful

to see *commoning* as a 'relational grammar' or mode of exchange, i.e. one of four ways in which resources can be distributed and what that means for how people relate to each other. A number of authors have developed such relational grammars, in which the commons is identified with the activity of pooling or mutualization, i.e. the sharing of a resource for an agreed upon common usage, called Communal Sharing by Alan Page Fiske in his book 'Structures of Social Life'.

This modality can be distinguished from three other modes of exchange (Fiske, 1993):

- The 'gift economy', called Equality Ranking, because the gift calls for a counter-gift which restores the balance of exchange;
- Obligatory state-based redistribution systems, called Authority Ranking, in which resources are (re)distributed based on rank (bottom-up as in feudalism or top-down as in the welfare state models); and
- The exchange of 'equal value' in markets based on price signals, called Market Pricing.

These four modalities have existed in all time periods and regions, but in different combinations, i.e. they are structured vis a vis each other. Societies and historical periods can be defined by the dominance of one modality over another, which forces the weaker modes of distribution to adapt.

Kojin Karatani's book *The Structure of World History* (2014) is an excellent attempt to place the evolution of these modes of exchange in a historical context. According to Karatani:

- Pooling is the primary mode for the early tribal and nomadic forms of human organization, as 'owning' is counter-productive for nomads;
- The gift economy starts operating and becomes strongest in more complex tribal arrangements, especially after sedentarisation, since the social obligation of the gift and counter-gift creates more complex and scaled-up societies and pacifies relations;
- With the onset of class society, 'Authority Ranking' or re-distribution becomes dominant; and
- The market system becomes dominant under capitalism.

Both Fiske (1993) and Karatani (2014) agree that these modalities occur in all regions and time periods, but in different combinations. Thus commons (or pooling/mutualization) can be found in every social arrangement. This allows us to see the re-emergence of urban commons in our particular historical conjuncture.

Tribal societies as well as the class-based societies that emerged before capitalism have relatively strong commons, and they are essentially the natural commons, which is the form of commons that has been studied in priority by the school of Elinor Ostrom (1990). They co-exist with the more organic culturally inherited commons, such as folk knowledge. These are social systems that do not systematically separate people from their means of livelihood. Hence, under European feudalism, for example, peasants had access to common land. The link between the emergence of capitalism and the enclosures of those land commons is well documented (Neeson, 1993).

With the emergence and evolution of capitalism and the market system - first as an emergent subsystem in the cities, later as the dominant form of national and world society - we see the second form of commons becoming important, i.e. the social commons. In western history we see the emergence of the guild systems in the cities of the Middle Ages, which are solidarity systems for craft workers and merchants, in which 'welfare' systems are mutualized (De Moor, 2008) and with very strong elements of self-government in the medieval communes, as described by the Belgian historian Henri Pirenne (2014). When market-based capitalism becomes dominant, the lives of the workers become very precarious, since they are now divorced from the means of livelihood. This creates the necessity for the generalization of this new form of 'social' commons, which mutualize protection against the risks of life and strengthen the collective power of the workers. In this context, we can consider worker coops, along with mutuals as a form of commons. Cooperatives can then be considered as a legal form to manage social commons. With the generalization of the welfare state model in Western Europe, most of these commons were state-ified, i.e. managed and owned by the state, and no longer by the workerscommoners themselves. There is thus an argument to be made that the social security systems of the welfare state are social commons that are governed by the state as representing the citizens in a democratic polity, but given the evolution of the neoliberal state forms, they could and should be substantially re-commonified.

Since the emergence of the internet, and especially since the invention of web (the launch of the web browser in October 1993), we see the birth and rapid evolution of a third type of commons: the knowledge commons. Distributed computer networks allow for the generalisation of peer to peer dynamics, i.e. open contributory systems where peers are free to join in the creation of shared knowledge resources, such as open knowledge, free software and shared designs. In our interpretation, knowledge commons are bound to the phase of cognitive capitalism, a phase of capitalism in which knowledge becomes a primary factor of production and competitive advantage, and at the same time represent an alternative to 'knowledge as private property', in which knowledge workers and citizens take collective ownership of this factor of production. To the degree that the neoliberal form of cognitive or networkbased capitalism undermines salary-based work and generalizes precarious work, especially for knowledge workers, these knowledge commons and distributed networks become a vital tool for social autonomy and collective organisation. But access to knowledge does not automatically create the possibility for the creation of autonomous and more secure livelihoods, and thus, knowledge commons are generally in a situation of co-dependence with capital, in which a new layer of capital - netarchical capital - directly uses and extracts value from the commons and human cooperation. Unlike classic capitalism, these new forms of capital do not hire workers to create surplus value, but directly extract value from peer-based production of value.

But we should not forget that knowledge is also a representation of material reality, and thus, the emergence of knowledge commons is bound to have an important effect on the modes of production and distribution. We cannot produce and distribute value without representing our activities. We would then propose the hypothesis that this is the phase we have reached today, i.e. the 'phygital' phase in which we see the increased intertwining of 'digital' (i.e. knowledge) and 'physical' (Kostakis, et al., 2015b).

The key location of this intertwining are the urban commons (Kostakis, et al., 2015a). Urban commons are the locus where digital knowledge and culture, and the material re-organization of a post-capitalist mode of exchange and production, converge into new ways of organizing provisioning systems and where citizens are 'commonifying' the infrastructure needed for this transition (Dalakoglou, 2017). We also believe that the urban commons are a transition to more developed productive commons. In other words, in this phase, we are mutualizing the uses of houses and cars, but not yet 'making' them.

As we can see in this following figure, commons can also consist of material commons that are co-produced, a fourth type of commons that has been historically underdeveloped. Within the development of urban commons, we can see more direct prototyping of shared workplaces (Niaros et al., 2017) that are a possible prefiguration of new forms of cosmo-local production, combining globally shared productive knowledge with relocalized production capacities through the technology linked to distributed manufacturing (Kostakis et al., 2015). We will return to this topic.

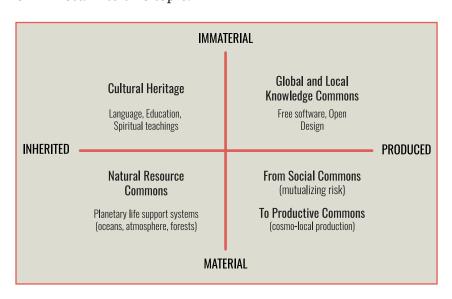


Figure 1: The four types of commons

WAVES OF COMMONNING	The Natural Resource Commons	In indigenous, traditional and pre- or non-capitalist societies, natural resources are collectively managed for long-term use and preservation.
	The "Social" Commons of the Workers	Mutualities, Cooperatives and Unions: Without direct access to natural resources, workers pool risk and solidarity, before it was nationalized in the welfare state.
	The Digital Commons	Many-to-many digital networks enable global knowledge commonss of shared knowledge, software and design. Open and global productive communities emerge and create supportive entredonneurial coalitions and global for-benefit associations that manage the global infrastructure.
	The Urban / Territorial Commons	Networked citizens and inhabitants create alternative provisioning systems based on commons models (SLOC: "Small, Local, Open and Connected")
	The Productive Commons [Cosmo-Local]	The people of the world start producing in ways that are compatibble with the carrying capacity of the planet. Productive knowledge is mutalized on a global scale, but physical production is re-localized throug distributed manufacturin and cooperatives.

Figure 2: The five waves of commoning - Historical evolution of forms of commons

The political conjuncture for the urban commons as locus for societal change

We believe that cities are becoming a crucial transnational governance structure in the current conjuncture. First of all, it is clear that urbanisation is a very strong trend in the demographic organization of our world. But we believe there is also a strong structural and political reason. While many systemic crises are affecting the current world order, it is equally clear that the world of nation-states, the international system, is not currently up to the task of dealing with the social-ecological transition that is required.

The combination of hypotheses from Kojin Karatani (2014) and Karl Polanyi (1944) offer a good framework for this argument. Karatani (2014) sees capitalism as a combination of the market mode of exchange, of state redistribution, and of civic community, i.e. the Capital-State-Nation axis, which is also an institutional configuration since each modality has its own institutions as well. According to his analysis of the four modes of exchange discussed above, capitalism is a three-in-one system, which makes it a very strong structure, since if any element of this triarchy fails, the two other integrated sub-systems can ride to its rescue.

Karl Polanyi (1944), whose seminal classic 'The Great Transformation' describes the evolution of capitalism since the end of the 18th century to WWII, adds the crucial interpretative hypothesis of what he calls the 'double movement'. The double movement means that, whenever market dynamics become dominant and disembed themselves from state and civic control, it tends to undermine the balance of those societies. At crucial moments, the 'Nation', i.e. the community of citizens who see themselves as unified through the nation-state, mobilize to force the State to rebalance the society. Thus, social and economic history is marked by periodic lib-lab swings, with periods of deregulation and market dominance, followed by counter-balancing social welfare moments. However, in the current conjuncture, since the 1980s but especially since 1989 and the fall of the rival Soviet system, capital has become trans-national; the nation-state no longer has enough power to rebalance the globalized order, meaning that popular mobilizations within the context of the nation-state have failed to reinstate positive results from a rebalancing of the nation-state.

Philip Bobbitt (2002), in his book 'The Shield of Achilles', has provided a history of the modern state form since the Renaissance, describing the evolution

from (roughly) the form of princely states, to kingly states, to state-nations (states that mobilize the whole population in warfare but do not have welfare systems), to nation-states (defined as states that take responsibility for the welfare of the whole nation). He argues that states have moved beyond the nation-state model to the market-state model, and that they are no longer concerned with the welfare of their citizens, as welfare systems are slowly or (not so slowly) dismantled but merely with 'opportunities to compete' in the globalized system.

In conclusion: the double movement within the nation-state no longer functions because capital has become trans-national, and stronger than the nation-state's capacity to limit its power through regulation.

If all this is true, then it is very likely that the response to rebalancing the neoliberal market system is not just at the nation-state level but must happen at the transnational level.

At the P2P Foundation, we have been studying the evolution of new social forms based on the organizational capacities inherent in transnational digital networks, and we claim to observe important new social formations:

- Global productive community: Consisting of people who are transnationally
 co-creating global knowledge commons in their respective fields (this
 includes open source and open design communities). It is a transnational
 form of social organisation that is not reducible to traditional global NGO
 networks, which are already counterbalancing global corporate power.
- Transnational 'entredonneurial coalitions': Networks of generative economic entities that aim to create livelihoods for those that participate in these global productive networks. An example of this is the Enspiral Network¹ around open source products such as Loomio and Co-budget.
- Transnational commons infrastructure organizations or for-benefit associations: Enabling and empowering the cooperative infrastructures needed by the global commons economy, such as the Drupal Association and other Free/Libre and Open Source Software (FLOSS) Foundations (including the Wikimedia Foundation that empowers the Wikipedia production).

Though we have sometimes called the latter the embryonic 'state form' of open source communities, these entities are only for the benefit of the specific open source ecosystems, not of the wider 'territorial' common good. This leaves

1 https://enspiral.com/

open the need for a transnational state form or common good organization that is distinct from the international order of nation-states (UN) or market-states (WTO, IMF, World Bank, etc).

It will be our argument in this report, that leagues of cities can fulfill a role for transnational governance and response to systemic crisis, by being the supporters of global protocol cooperativism, i.e. co-developers of global open source infrastructures that are needed to solve systemic issues that affect all cities. As an example, consider MuniBnB, a coalition developing alternative solutions to AirBnB.

The role of the commons in reducing the material footprint of humanity

Mark Whitaker's 3,000 historic and comparative account (2010) of Ecological Revolution(s) past and present in Europe, Japan and China, confirms the basic intuition that led to the creation of the P2P Foundation in 2006, after our own 2-year deep dive in the literature on historical transitions. The essential thesis of Whitaker's book is that competitive elite-based systems lead to the eventual overuse of resources in their territory, and that at a certain level of scale, the cost of maintaining large imperial entities break down. Historically that was represented by spiritual and religious movements that stressed the balance between the human and nature, and obtained mass popular support in conditions of systemic crises.

In our reading of these historical transitions after societal breakdowns, there are three recurring elements in the recovery of sustainability. The first factor is the mutualization of knowledge needed to confront the problems and restore the ecological and social balance within the affected society. Jean Gimpel (1976) and Pierre Musso (2017) are two authors who have stressed the role of the monks in technological development on the European continent after the demise of the Roman empire. The second factor is the mutualization of infrastructures. The example of the monastic abbeys is illustrative of the capacity to create food and shelter, in conditions with much lower material footprints than the societal elites. Finally, the third factor is the relocalization of production and the reduction of the material footprint for the transportation of goods and services.

These same three processes are now re-emerging as a response to the systemic crisis of the neoliberal global system and the crisis of the market state. Evidence

of the recurrence of the first response is the emergence of shared knowledge practices though global (and local) knowledge commons, illustrated by the free software, open design and shared knowledge movements (Creative Commons, open access movements, open data movements, etc.).

Evidence of the second is the emergence of new forms of mutualization, which can take beneficial but also negative forms under the dominance of neoliberal capitalism. Nevertheless, there is growing evidence of the growth of commoning infrastructures. For example, the Dutch study of Tine de Moor (2013), Homo Cooperans, showed exponential growth in the Netherlands, and a Flemish study by the ecological think tank Oikos (2016) shows exponential growth of commons-based civic initiatives in Flanders.

The third factor, still in prototype form but emerging with force, is the relocalization or 'cosmo-localization' of production, as evidence in the productive experimentation of Fablabs using distributed manufacturing techniques, such as in the Poblenou neighborhood of Barcelona. We define cosmo-local production as the convergence of global cooperation in the creation of productive knowledge ('all that is light is global'), but coupled with distribution and actual production on the more local level ('all that is heavy is local'). Hence our moniker, 'design global, manufacture local' (DGML).

The commons allows for a re-organization of the current destructive logic of production and value creation, by combining a global-local response to material and scientific challenges, and by creating sustainable logics of products and services that bypass the need for planned obsolescence. Second, the mutualization of infrastructures for human provisioning systems (shelter, energy, mobility) allows for a drastic reduction of the human footprint, augmented by the relocalization effects. This potential has been calculated in our P2P Foundation report, on the Thermodynamics of Peer Production, by Xavier Rizos and Celine Piques (2017).

Finally, commons-based peer production is also a new value regime which allows different distribution systems. As explained in our earlier report, Value in the Commons Economy (Bauwens & Niaros, 2017), the commons are associated with the emergence of a contributory economy, in which value can be recognized not as commodity value but according to the contributions recognized by the commons-based productive alliances, and can be rewarded fairly using for example, tools of open and contributive accounting.

The challenge of meaningful work in the age of Trumpism

Through relocalized production there is potential to re-industrialize countries that are suffering from delocalization, and thus create meaningful work at the local level which is not limited to techies, but to all kinds of necessary work.

The relative de-industrialization of the West and the decline of the part of the surplus going to labor has created social groups, especially the less educated industrial class, which are fuelling reactionary and even anti-democratic politics.

We believe that a strategy of cosmo-localization, or 'Design Global, Manufacture Local' (Kostakis et al., 2015b) – which is under development by the distributed manufacturing movement, open source circular economy initiatives, fablabs and makerspaces (Niaros et al., 2017) – has the potential to recreate a more ecologically balanced and socially fair re-industrialization.

An example of this potential, taken from our research in Ghent (Bauwens & Onzia, 2017), is the local initiative 'Lunch met LEF', which seeks to re-introduce local, fair and ecologically sound organic food for public school meals. Until recently, the food was produced by contracted multinational companies that sourced food non-locally, and was not geared towards better health. While the city has made some progress by requiring a percentage of local organic food and renegotiating contracts, this initiative goes further and is inspired by the experience of Copenhagen, where 90% of these food deliveries is now organic and local. The proposal for Ghent would involve the purchase of local organic food from suppliers in and around the city, transported with zero-carbon shared cargo-bikes, and cooked locally in the schools, thereby creating a local ecosystem using local labor. Such an example can be reinforced by involving other anchor institutions in the city such as universities and hospitals, using social procurement techniques.

1.2. The challenge of urban commons for the actors in the city

Contributory democracy as a challenge to representative democracy

Since the French Revolution, our legal and political system has ignored the commons, which had been radically enclosed by capitalism, and our institutional systems are largely based on the private-public dichotomy.

In nation-state, legitimacy derives from elections, which gives a mandate to politicians, which may or may not be influenced by extra-parliamentary forces. Since the 1960s, both civic and corporate power have increased with the emergence of networks of Civil Society Organisations and NGOs.

The emergence of contributory communities around the commons is in many ways a challenge to the existing system. Indeed, to construct or declare a commons is to make a claim to power, including political power. Citizens and their associations are making a claim to govern a resource 'according to their own rules and norms', and as commons, outside of the public-private dichotomy.

Our existing institutional networks were certainly initially not prepared, but there are recent evolutions showing institutional adaptations. For example, the Bologna Regulation for the Care and Regeneration of Urban Commons (LabGov, 2014) regulates the proposals/claims of the citizens, allows for Commons Accords between the city and the commons communities, and determines the level of support. In the Netherlands, there is a similar, but more neoliberally oriented, Right to Challenge², which permits citizens to challenge the governance by the city. Last, the Italian water movement, which won the referendum against the privatisation of water, has developed interesting notions around the 'commonification of public services' and public-commons partnerships (Fattori, 2012).

From one perspective, commons are about self-rule and thus profoundly democratic, but proceed from a different legitimacy, that of contributing to the commons, sometimes called a 'democracy of the doers'. It is one of the few places where the true meaning of democracy is learned and practiced.

2 In Dutch, this is called 'Recht op uitdaging' and it is documented at https://tinyurl.com/ybqmts4n.

On the other hand, contributory democracy only gives voice to the participants, and commoners care about their own commons. It is therefore to be distinguished from participatory and deliberative democracy itself, which involves all citizens.

Also, they often require social and educational capital that is not equally distributed in society. By resting on highly motivated citizens, and generating collective intelligence and expertise that overflows the professional class of experts active in administrations, corporations and NGOs, a well-integrated process for commoning in representative democracies may contribute to the emergence of a 'super-competent' democracy, in which formal democratic bodies can be complemented with the expertise of its most engaged citizens.

In one way or another, representative democracy and contributory democracy need to find a 'modus vivendi', expressed in new institutional design.

The generative economy as a challenge to market power

Capitalism was born with the enclosures of the English and Scottish countryside, which were previously commons, and has thus been associated as a system that is hostile to commons. More generally, competitivity often requires extractive practices towards nature and people.

The re-emergence of urban commons requires for its further health and expansion, a generative economy, which succeeds in creating meaningful livelihoods that are compatible with the natural commons and the survivability of humans on the planet.

First of all, these new businesses work with open knowledge commons, and cannot develop business models that are based on the artificial scarcity generated by intellectual property. Second, a contributory model requires equity in the recognition of these contributions, so that there is no unfair extraction of the many by the few. Finally, the ecological potential associated with the new commons-based models are an essential feature of the transition.

The new commons-based productive communities also create social power that constrains traditional business models and pressures them into some kind of adaptation with the expectations of the commoners. The example of how IBM had to adapt to the rules and norms of the Linux community is illustrative³.

This example is documented at https://wiki.p2pfoundation.net/IBM and Linux.

While the new generative businesses that emerge from these commons have their own advantages, they also cope with competitive disadvantages. They voluntarily recognize a number of costs for reducing or avoiding negative environmental and possible social externalities. Further, they operate in industrial sectors that have to compete with very heavily subsidized economic sectors such as industrial agriculture and energy (the direct and indirect worldwide support for fossil fuel extraction has been calculated to be nearly \$6 trillion⁴.)

The privately owned and extractive peer to peer exchange models of the 'gig economy', where citizens trade products and services over platforms such as the Uber and Airbnb models, have recognized negative effects. In this case, alternative platform cooperatives have developed, in which the platform itself is considered the commons of these distributed markets, so that the surplus can be re-invested in the livelihood of the commons and the expansion of their infrastructures.

All the above means that any successful commons transition requires not only support for the generative businesses, but also policies that impact traditional business models, in order to make the latter more generative as well. In many ways, the commons-based generative models are prefigurations of the changes that are needed for all corporate players.

The commons as a challenge to traditional civil society organisations

Civil society has been organized with the emergence of the labour movement in the 19th century, and with the wave of nonprofits and NGOs since the sixties. But the commons creates a different type of social organisations. Unlike the 'scarcity' view that motivates traditional NGOs, where the logic is how to direct scarce resources to solve a particular problem, the new logic is one of 'abundance', i.e. platforms are built that allow people to direct their energy towards collective problem-solving.

The communities that create productive knowledge commons nearly always end up building a new type of 'for-benefit association', which takes care of the common infrastructure. They do not direct the contributory process, but enable and empower it. In the digital world, we know them as the so-called 'FLOSS Foundations', such as the Linux Foundation, the Drupal Association, the Wikimedia Foundation, etc.

 $\frac{4}{\text{nually/}}. \\ \frac{\text{https://cleantechnica.com/2017/08/09/global-fossil-fuel-subsidies-still-total-5-trillion-annually/}{\text{nually/}}. \\$

Our great discovery in Ghent (Bauwens & Onzia, 2017) was that the urban commons follow this general model. This means that in many cases, NGOs and nonprofits play an infrastructural support role regarding these commons. This is a challenge, since the dominant command and control logic cannot work in the commons that they support. Also, these commons are often anti-credentialist, i.e. what matters is what you can do, not your formal credentials; often they reject the professionalization and bureaucratization that is the reality of the nonprofit world. Contemporary citizens are also less likely to join old style membership organizations, preferring the informality and contributory logic of the commons.

In conclusion, urban commons create their own new civil society institutions, while also creating a transformative pressure on the existing CSOs.



2. Recent Developments in Urban Commons Transitions

2.1. Grassroots initiatives in urban commons transitions

In the book 'Towards a co-city: From the urban commons to the city as a commons', edited by LabGov in cooperation with the P2P Foundation, the authors use a large variety of case studies to map where urban commons innovations are occurring (Iaione et al., 2017). Indeed, there is an active structure of social movements, civil organisations and citizens emerging that work towards the regeneration of the urban environment through a commonsoriented approach. Initiatives from cities that transform themselves into 'sharing cities' are included, such as Seoul, San Francisco and Milan, as well as examples from the Global South like Medellin, Nairobi and Dakar. All of these case studies will soon be published on the Co-Cities platform⁵. For the needs of this report, we will focus on the book's conclusions about the commonalities and divergences found in the case studies of Global North and Global South.

First of all, it is quite clear that urban commons exist and emerge everywhere, but an important distinction is that many projects in the Global North are connected to city and other state institutions, while this is hardly the case in the Global South. Paradoxically, while there is a strong horizontalist movement in the global North that explicitly questions such connection with official institutions, in the South it is most often the government's identification with developmentalist policies that creates indifference towards the commons-based modalities of their citizens.

Developments in the Global North⁶

The existence of sophisticated urban commons policies that facilitate local initiatives in the Global North is evident. Many cities in the western/northern world have taken turns towards participatory, sharing and commonsoriented policies. However, there is also an increasing number of integrated citizen coalitions that operate in cities, with little or no support from local authorities. These projects are multi-year, multi-stakeholder, and integrative.

^{5 &}lt;a href="http://www.collaborative.city/">http://www.collaborative.city/

⁶ It should be noted that this subsection is in part a reworked excerpt from the Iaione et al., 2017.

Such projects are very careful in defining their inner governance and relations with external parties, such as governments and business, to avoid being coopted or captured by them. Quite a few of them are struggling to adapt the proper governance model, between 'horizontalist' aspirations and 'vertical' needs for institutionalisation.

In addition, local initiatives in the Global North have a strong interest in both social and ecological sustainability. For instance, some of them (e.g. the Footscray makerspace⁷ in Melbourne) work with migrant and refugee populations in poor neighborhoods, while linking their activities to waste management and recycling. This notion is based on the fact that ecological issues affect mostly the poor and that solving them could create new economic and social opportunities, such as jobs, skill development and income.

As for the commons, they are clearly seen as a tool for economic development. For example, Barcelona's Fab City initiative aims at re-localising part of their food and industrial production within the next 50 years, through the creation of fabrication labs. Another project, Evergreen Cooperative in Cleveland, plans to use the purchasing power of 'anchor institutions', such as hospitals and universities, to create a local economy based on local coops. In Savannah, there is also an attempt to create an economy around the recycling of construction and demolition waste. Further, 596 Acres in New York is moving from the common re-use of public spaces to the creation of locally-run commercial zones through Real Estates Investment Cooperatives. Also, in Sarantaporo (Greece), there is a wireless community network that is now helping local farmers by providing them with access to agricultural information that is vital for their economic well-being. The common aspect of these examples is that sharing and collaboration is not just seen as a 'nice thing to do', but as a key ingredient for the creation of a thriving local economy that works for all inhabitants.

Developments in the Global South⁸

Contrary to the case of Global North, cooperation between local initiatives and governmental institutions, especially at the national level, is problematic for nearly all reviewed projects in the Global South. On the one hand, the indifference of the authorities is evident, even if a project is successful and has a positive impact on the city. At issue here is the inability of governmental

- 7 http://footscraymakerlab.com/
- 8 It should be noted that this subsection is a reworked excerpt from the Iaione et al., 2017.

personnel to understand the logic of commoning, especially when it is 'extrainstitutional' i.e. happening outside the sphere of both government, business, as well as 'classic' NGOs. However, there are always 'interstitial' individuals, who can make a difference and create some level of cooperation even within indifferent and hostile governmental entities. On behalf of the local initiatives, while some reject governmental interference in order to maintain their autonomy, others stress the necessary role of the government as framer of the local cooperation, and claim a good response in considering their policy recommendations.

Further, the majority of the projects in Global South are 'integrative', meaning that they are not 'one issue' projects that focus on one dimension, but they have holistic visions of both the problem and the methods needed to overcome them. Community integration and collective intelligence is balanced and integrated with individual 'passionate' contributions.

Additionally, the connection between a focus on civil society's empowerment and the attempt to create generative livelihoods is a recurrent theme in several projects. For example, some projects clearly combine a focus towards respectively young people and informal traders, but look to local economic value streams as a key part of the solution for their projects. It should be stressed that commons-projects are civic-oriented, but they do not consider themselves as traditional NGOs, though they seek support and sometimes funding from them. Also, they might engage in intensive dialogue with local population and institutions, but also connect with global networks and NGOs.

All in all, in the examples of Global South, the commons is present as narrative and practice but not hegemonic in the discourse. While all the examined projects have pooled resources and practice various aspects of commoning, they use different types of languages to express it. Some use explicitly the commons language, usually combined with a focus on creating a local exchange system; others have a strong 'neo-traditional' outlook, with a focus on reviving traditional forms of cooperation and governance in a new context; and a few of them are anchored in the 'buen vivir/buen conocer' narrative discourse.

Through the aforementioned analysis, it becomes evident that there is a grassroots desire to initiate social change. To achieve this, mutual coordination of such initiatives is essential. As Michel Bauwens (2013) argues, we should mutualise our forces and create a new set of political, social and economic institutions that can have 'transitional' effects. The next subsection discusses

the idea of the Assembly of the Commons as an attempt to project civil power and influence at every level of society.

The Assemblies of the Commons as the 'voice' of the commoners

In 2013, Michel Bauwens introduced the concept of the Assembly of the Commons as part of his 'Proposed next steps for the emerging P2P and commons networks'. An Assembly of the Commons (AoC) is described as a local or affinity-based association of citizens that brings together all those who contribute and maintain the commons (Bauwens, 2013). It is constituted of representatives from various types of initiatives such as urban gardens, makerspaces, housing cooperatives, complementary currencies, but also people from local authorities and universities. Such alliances can be active on any scale, i.e. topical, local, transnational etc.

The main aim of the AoC is to make common resources more inclusionary and recreate civic power around the commons. Quite a few of the existing AoC projects⁹ are developing their own 'social charter' which describes in details the values and practices underpinning the assembly, and provides the rules for its governance and protection.

There are several functions envisaged for these assemblies. To begin with, AoC is a forum to exchange experiences and facilitate the debate on issues around the commons. During the meetings of the AoC, participants can identify and disseminate activities that are taking place within their initiatives or networks. Another important feature of AoC is that it could provide a platform to formulate policy proposals that enhance civic infrastructures for the commons (Bauwens, 2013). In addition, the assembly could assess the impact of present policies and negotiate proposals for the future with public institutions, based on the needs of their community. In this sense, the AoC could promote the establishment of public-commons partnerships that increase access to the commons and prevent their enclosure.

It should be mentioned that the concept and practice of the Assemblies of the Commons is still in progress, thus we shall see how the various functions will emerge and be adapted to the needs of each community. However, there are recent developments in some cities that illustrate the potential of such assemblies.

⁹ For a list of French and other assemblies and chambres of the commons, see here: http://wiki.lescommuns.org/wiki/Accueil

A prominent example is that of the Assembly of the Commons in Lille¹⁰, where meetings have been held on a monthly basis since 2015. During such meetings, people from local commons-oriented initiatives a gather and share their ideas, news and skills in the form of self-managed workshops.

After more than 15 sessions and numerous workshops, the members of the Assembly have finalised their Charter of Practices¹¹. This document defines its basic objectives, ethics, tools, partners and other. In a nutshell, the main goal of the Assembly of Lille is to create connections between local initiatives and promote the culture of the commons. Today, there are many commonsoriented projects in Lille, which the Assembly is attempting to map in an online tool¹². Moreover, the Assembly aims at developing a commons-consciousness, which is currently missing in most projects as they only focus on their own role.

Further, the Assembly of Lille is also exploring ways of collaboration with the local government. In this context, they are discussing about a General Political License which will allow the Assembly to work with the world of politics while maintaining the autonomy of the commoners (Bauwens, 2016).

As a next step, the Assembly of Lille is working on the creation of their Chamber of Commons¹³, the sister assembly of ethical entities that create livelihoods for commoners (Bauwens, 2015a). An example of such a body is the Xarxa d'Economia Solidària (XES)¹⁴ in Barcelona, which constitutes the most important community organisation for the social and solidarity economy in Catalonia.

It should be highlighted that the phenomenon of the AoC is not present only in Lille. There are several other attempts in cities such as Toulouse, Ghent, Helsinki, Melbourne and others. Additionally, there are structures that do not use the term 'AoC' but act similarly, such as Procomuns in Barcelona. For the moment, the francophone assemblies are interconnected but there are no strong links with others. An attempt towards that direction is the European Commons Assembly¹⁵ that facilitates pluralistic debate regarding the strategy and agenda for a united political vision. Ultimately, it helps to build a flourishing European political civil society movement for the commons.

- 10 <u>http://lille.lescommuns.org/</u>
- 11 http://lille.lescommuns.org/des-pratiques/
- 12 http://encommuns.org/
- 13 <u>http://chambredescommuns.org/</u>
- 14 http://xes.cat/
- https://europeancommonsassembly.eu/

To recap, the idea of the Assembly of the Commons is not mature yet. Rather, the majority of the existing assemblies is in the development phase, inventing their own operation as informal structures. However, the proliferation of the Assemblies of the Commons and their continuous networking could assist in fulfilling the need for a more democratic city.

2.2. Commons-oriented municipal coalitions¹⁶

The rationale for our case study choices

This section explores cases of city councils that offer alternatives to the incumbent municipal form. The aim is not to be all inclusive but rather to explore different approaches of city councils that are aligned with the proliferation of the commons and facilitate citizen participation in citymaking. The main method used in this report is that of the exploratory case study, using data from the various sources¹⁷.

The cases chosen in this review are not random but represent different logics at work that cities can choose from, and they are not mutually exclusive, but rather complementary.

- Barcelona is significant because it is the expression of a new radical municipalism that seeks to bypass the current limitations of the nationstate and has a majority political coalition and movement, En Comú, that refers explicitly to the underlying principle of the commons. It illustrates how movement activists can work with existing political parties to create new platforms that foster greater participation in governance.
- Bologna is the paradigmatic case for developing new institutional processes for public-commons partnerships. Through this case, it is
- It should be noted that this subsection is in part a reworked excerpt from the Niaros, 2017 that was supported by Timelab http://timelab.org/
- The data gathered consist mainly of available information online, including internal working and communication documents developed by members of the examined organisations and shared via online repositories such as the P2P Foundation wiki. Furthermore, a significant body of information is provided at the websites of the organisations, and various online videos featuring interviews and conversations with the people involved. Moreover, a number of online media have over time covered various stories about the cases. Last, data has been gathered through personal communications of the authors with key persons from the cases.

illustrated that new kinds of experimentalist and adaptive governance and legal tools are needed to allow citizens and other actors to enter a co-design processes for the city.

- Naples is a more radical version, explicitly catering for commons-based occupations and claims on public spaces.
- Milan presents a version less radical and a more mainstream practice
 of the 'integrated sharing city', which has the merit of seeing the
 various forms of mutualization of infrastructure, mainly collaborative
 consumption, as a key strategic development for any city. It is more
 directly connected to economic development, start-ups, etc.
- The case of Frome illustrates how local councils can play a key role in enabling communities to increase their resilience and face their challenges, while not following the political agendas of a party.
- Last but not least, Ghent is the first attempt to craft an urban commons focused transition plan at the city level.

The city of Barcelona

The outcome of the municipal and regional elections in May 2015 has transformed the political scene in Spain. New citizen coalitions with roots in community groups won unexpected victories in seven major cities. One of the most prominent cases is that of Barcelona, where Barcelona En Comú (Bcomú) was elected as the minority government of the city. BComú describes itself as a citizen platform and a confluence of various social movements and radical political groups (ROAR Collective, 2015). However, while the initiative arose from social movements, it ended up incorporating several existing political parties in its platform, such as Podemos (Russell & Reyes, 2017).



The BComú electoral programme was drawn up by over 5000 people, with contributions made in open assemblies and online (Baird, 2015). Hence, the platform came up with objectives such as ending austerity, halting evictions, improving living standards, curbing mass tourism and reclaiming the urban commons (ROAR Collective, 2015). They also pledged to open up local government, democratise government institutions and promote direct citizen participation as a way to strengthen social movements (Sagrans, 2015).

Upon entering government, BComú has been very active in policy-making. To begin with, of particular interest is BComú's support towards the Social and Solidarity Economy (SSE) sector and the subsequent development of the Impetus Plan for the Social and Solidarity Economy¹⁸. This plan includes policies that respond to two major objectives: i) to promote the generation of new initiatives and the transformation of traditional commercial companies into SSE organisations; and ii) to reinforce existing SSE initiatives and facilitate coordination between them (Ajuntament de Barcelona, 2017).

More than a hundred meetings with various actors were held, which enabled the production of a joint Impetus Plan which includes a specific section on the commons. Indeed, as illustrated in Figure 3, the following sectors were represented in the plan: social and solidarity economy; commons collaborative economy; citizens (over three hundred citizens' proposals have been taken into account); city council departments; other sources of inspiration (e.g. documents produced by the local and international SSE sector).

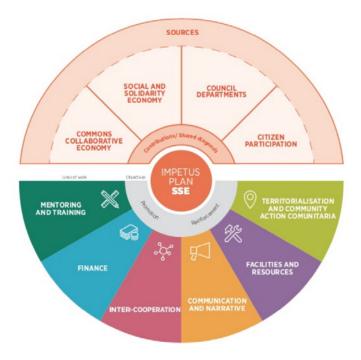


Figure 3: The planning process for the Impetus Plan for Social and Solidarity Economy in Barcelona (Ajuntament de Barcelona, 2017).

As part of the Impetus Plan, the Commons Collaborative Economy (CCE) was brought into the spotlight. Although initially the definition of CCE was not clear to some members of the city council – they mostly thought of Uber or Airbnb (Bergren-Miller, 2017) – the platform soon realized that boosting CCE is an act of co-creation with commoners, not a government project alone. Thus, the city established a co-creation policy framework to open up the dialogue (Bergren-Miller, 2017), comprised by four layers (Figure 4).

- An inter-area body inside the city council, which coordinates issues around transport, housing, tourism and labor. This layer operates solely within the municipal government.
- BarCola¹⁹, a coworking group which brings together the city council and representatives from the CCE sector. BarCola meets almost every month with the aim to assess the progress in the sector, recommend policies and enhance the dialogue between the SSE and commons-oriented production.
- Procomuns²⁰, which started as an event in March 2016 to open participation in the formulation of policy proposals for the city council. Four hundred people attended to the event that resulted in 120 policy recommendations²¹.
- Decidim Barcelona²², a web platform for citizens to co-create the Municipal Action Plan for the city, currently comprising over 10,000 proposals and 25,000 registered users (El Periódico, 2016).



Figure 4: The co-creation policy framework for CCE (Ajuntament de Barcelona, 2017b).

- http://procomuns.net/en/about-2/barcola/
- 20 http://procomuns.net/en/
- 21 http://procomuns.net/en/policy/
- https://www.decidim.barcelona/

As a result of the co-creation policy framework for CCE, Barcelona now has a Collaborative Economy Action Plan²³. Examples of the measures included in this plan are: i) La Comunificadora²⁴, a training programme for collaborative economy initiatives; ii) a circular economy/reuse programme to map and use city council's underutilized infrastructure; and iii) the support of various events (Bergren-Miller, 2017).

In parallel, the BComú is funding the Ateneus de Fabricació, a network of public FabLabs that is envisaged to spread to every neighborhood as part of the public infrastructure. These places provide access to high-tech machines and promote learning on digital manufacturing. The ultimate goal is that citizens will appropriate digital fabrication and create socially innovative ways to develop livelihoods and improve their neighborhoods (Smith et al., 2017).

Another innovative project by BComú that is worth observing is related to mobility. The new plan will restrict traffic to a number of big roads, drastically reducing pollution and turning secondary streets into 'citizen spaces' (Bausells, 2016). Such transformation will take place through the creation of Superilles (superblocks), mini neighbourhoods within which car circulation will be reduced to its minimum, favoring the development of green areas and new spaces for collective living (Spigarolo, 2017).

While the aforementioned developments are taking place within Barcelona, BComú is also promoting and sharing its experiences abroad. For example, it has established an international committee to facilitate learning from other cities such as Naples and Messina (Russell & Reyes, 2017) and has been active in international forums, taking a leadership role in the Global Network of Cities, Local and Regional Governments²⁵ These moves look to bypass the national scale where possible, prefiguring post-national networks of urban solidarity and cooperation (Russell & Reyes, 2017).

In all, BComú's intention to strengthen the commons collaborative economy is evident. The community empowerment and network logics displayed by city platforms such as BComú, could inspire new bottom-up electoral coalitions in other places. However, transforming city systems to make them more commons-friendly is a structural challenge with many administrative, legal and political complexities (Bollier, 2016; Delclós, 2015).

- 23 http://www.smart-society-project.eu/wp-content/uploads/socialCharter/brusselsMorning-December.pdf
- 24 <u>http://freeknowledge.eu/article/la-comunificadora-story-continues</u>
- https://www.uclg.org/en/organisation/presidency

The city of Bologna

In 2012, the City of Bologna initiated a policy process to reshape the relationship between citizens and the local administration with regard to urban resources and services. In the context of the City as a Commons²⁶ project, led by LabGov²⁷, the City of Bologna experimented for two years in three neighborhoods. As a result, in February 2014, they adopted a regulatory framework titled The Bologna Regulation on Civic Collaboration for the Urban Commons²⁸ (LabGov, 2014). Urban commons in the Regulation are conceived as public spaces, green spaces, abandoned buildings and other infrastructure. However, its definition expands to the quality of life in the city and the concept of human flourishing.



The central tool of the Regulation is the pact of collaboration, which allows the city to enter into agreements with residents and other actors (e.g. NGOs, local entrepreneurs, civil society organisations, knowledge institutions), for the 'care and regeneration' of the urban commons across the city. The Regulation provides also technical and monetary support to the collaboration. In addition, it contains norms and guidance on the importance of sustaining common resources and maintaining their inclusiveness and openness. Finally, the

- 26 http://comunita.comune.bologna.it/beni-comuni
- LabGov (the Laboratory for the Governance of Commons) is an 'in-house clinic' and think tank that is concerned with collaborative governance, public collaborations for the commons, subsidiarity (governance at the lowest appropriate level), the sharing economy and collaborative consumption http://www.labgov.it
- 28 http://www.offidocs.com/osessionx01/#/client/REVGQVVMVABjAGRIZmF1bHQ=

Regulation foresees that the City supports the willingness of inhabitants, private owners, and commercial businesses to create street or neighborhood associations to manage public space, parks, and abandoned spaces (Foster & Iaione, 2016).

In this context, the city is considered as a collaborative social ecosystem. Instead of seeing the city simply as an inventory of resources to be administered by politicians and bureaucratic experts, the Bologna Regulation pursues 'public/commons partnerships' that bring people together into close, convivial and flexible collaborations (Bollier, 2015). In all, the Regulation can be considered as a sort of handbook for civic and public collaboration, and also a new vision for government.

Since the approval of the Regulation, 280 pacts of collaboration have been signed (Iaione et al., 2017).

Some key collaborative projects are:

- · Neighborhood regeneration projects;
- An experiment where restaurants and bars work directly with neighbors to set rules for their businesses and cooperate on regenerating the community;
- A program to draw upon parents' ideas and skills in improving kindergartens;
- A civic crowdfunding prototype to support projects that the city cannot wholly fund;
- An ambitious program of urban gardens; and
- Creation of digital platforms to support commons projects of all varieties (Walljasper, 2016).

Further, a number of the efforts are aimed at supporting Bologna's poor populations. For instance, a women's association called Re-Use with Love²⁹ made a collaboration agreement with the city to turn an unused city-owned building into an 'ethical boutique'. Volunteers receive donations of clothes, shoes and accessories and organise appointments for needy residents to shop (the goods are for free) (D'Antonio, 2015).

Another example is the movement known as Social Streets³⁰. It started on

- 29 http://www.reusewithlove.org/
- 30 http://www.socialstreet.it/

Bologna's Via Fondazza, where residents launched a Facebook group dedicated to bringing neighbors together. Over time, group members initiated more concrete actions such as providing bikes for a system of neighborly bike sharing. According to D'Antonio (2015), Social Streets groups now have launched on 400 other streets and squares worldwide, including 57 in Bologna alone.

The aforementioned projects illustrate the Regulation's impact. However, it does not stop there. In 2015, LabGov coordinated the second phase of the Bologna program, the CO-Bologna³¹ process, which aims at applying the same design principles of the governance of the urban commons to other local public policies. The activities under the CO-Bologna project correspond to three areas: living together (collaborative services), growing together (co-ventures), making together (co-production) (Bauwens, 2015b). A core aspect of the project is the establishment of an Office for Civic Imagination. This is a policy innovation lab, structured as a co-working area internal to the municipal administration, through which civil servants can work together on finding solutions to urban problems and implementing them in accordance with the principle of civic collaboration (Iaione et al., 2017). Finally, the CO-Bologna process also includes the evaluation of the Bologna Regulation, in order to understand the impact of the public policy on urban democracy (Iaione et al., 2017).

Apart from the Regulations and its advancements, the City of Bologna enacted other public policies related to the commons, such as the invitation to tender Incredibol³² and the co-design process called Collaborare è Bologna³³. The first tool is a comprehensive plan to use abandoned or unutilized public assets as collaborative spaces. The second is a neighborhood collaborative planning process for understanding what the communities are willing to run as commons and co-design solutions to install forms of governance of the urban commons (Foster & Iaione, 2016).

It becomes evident that the City of Bologna is quite serious about becoming a city of collaboration. The City officials envisage Bologna as an entire city powered by sharing and collaboration, which is part of a global network of cities on the same path. Indeed, Torino is already in the process of adopting the Regulation, while a number of other Italian cities, including Milan, Rome and Florence, have expressed their interest too (Bollier, 2015). However, the replication of the Bologna Regulation and other tools in different cities could

- 31 http://co-bologna.it/
- 32 http://www.incredibol.net/en/
- http://www.urbancenterbologna.it/en/collaborare-bologna-en

be problematic. Although the Regulation promotes citizens' participation in shaping the city, it is still a top-down process.

The city of Naples

Another example of a city that has been working towards a more participatory and democratic political structure is Naples. In May 2011, after the election of Luigi de Magistris as mayor, Naples became the first Italian city to change the municipal statute by inserting the 'commons' as one of the interests to be protected and recognized as a fundamental right. With the term 'common goods' the Neapolitan Administration refers to 'the tangible and intangible assets of collective belonging that are managed in a shared, participatory process and that it's committed to ensure the collective enjoyment of common goods and their preservation for the benefit of future generations' (Cillero, 2017).

In 2016, the local government established a 'Department of the Commons' which encourages people to participate in the decision-making processes. The Department is local in orientation and concerned with anti-discrimination, equality and social justice, democracy, participation, environmental sustainability and representation (Mahony, 2017).



The municipality has also initiated a 'Permanent Citizen Observatory on the Commons' which studies, analyses, proposes and controls the management and protection of common goods. It is comprised by eleven members, who are experts in the legal, economic, social or environmental fields. Seven of these members are appointed by the Mayor and four are citizens selected through simple online procedures (Cillero, 2017).

Further, De Magistris has appointed an 'Assessor of Commons' to reclaim public management of the city's water services. The Assessor is also charged with identifying new commons-based ways of providing services (Bollier, 2012).

Another significant development was the recognition of seven public properties occupied by citizens and associations as 'emerging commons and as civic

developing environments'. Citizens and social movements transformed these neglected spaces to places 'that create social capital in terms of collective uses with a commons value' (Cillero, 2017). To facilitate this process, the local government prepared a Council Resolution³⁴ which aims at 'the identification of areas of civic importance ascribed to the category of the commons'. Apart from the economic value of the properties, the Resolution recognizes the social value of the experiences living in the occupied spaces. It also establishes 'the recognition of public spaces as part of a process of constant active listening and monitoring of the city and its demands, in relation to the collective use of spaces and protection of the commons' (Cillero, 2017).

Each space is different, so the required management and the profile of the spaces varies from one to another. However, they all share the objective of protecting the commons and keeping alive cultural, social and political matters (Cillero, 2017). The role of the Department of the Commons in this process is to recognize the legitimacy of occupied buildings in the city and organize public discussion tables in occupied buildings where citizens share decision-making power with the Administration (Mahony, 2017). What is not clearly established yet is who has the official responsibility for maintaining the space (regular checks, cleaning etc), i.e the Government, the occupants or both. The resolution specifies that 'the person temporarily in custody of the property management of municipal assets identified as a 'common good' will have to respond to the principles of good performance, impartiality, cost management, and resource efficiency, respecting the public interest' (Cillero, 2017).

It should be noted that after the publication of the Regulation, some members of the City Council criticised the Neapolitan Government, claiming that it would be better for the city to sell or rent these public spaces to increase the city's income. The Government was also accused of 'legalising' an illegal occupation of public buildings. However, the Resolution does not provide leases or concessions for the social movements that occupy the spaces; it only acknowledges the 'civic use' they do with them (Cillero, 2017).

Through the aforementioned analysis, it becomes obvious that the Mayor of Naples is committed to the commons. His ultimate goal is to establish an active network of cities with alternative governments able to speak on behalf of the people (Cillero, 2017). Towards that direction, Naples hosted a

Government Resolution no. 446/2016.

conference titled 'A Forum on the Commons for the Common Good'. The event brought together municipal officials, a few mayors, political associations and movements, and citizens from across Italy, with the aim 'to defend and promote the commons...understood as the heritage of all, the foundation of inalienable rights and participatory democracy' (Bollier, 2012).



The city of Milan

The Municipality of Milan has chosen to promote social innovation as one of the main aspects of a Smart City, but without limiting the debate to the technological dimension. It intends to develop knowledge on how innovation in the cities can contribute to the development of new methods of socially relevant problem-solving (Ramos, 2016).

As part of the Milano Smart City Project, another interesting experimentation emerged, that of the Milano Sharing City. The public administration of the city launched guidelines for the Sharing Economy in 2014, after intensive public consultation. The project is city-wide and involves many different processes which all aim to combine social innovation, upskilling of citizens, collaborative production through shared spaces and incubators, and sustainable businesses for job creation, aiming to be embedded in community and neighborhood (Iaione et al, 2017).

A successful initiative under this project is the Civic Crowdfunding³⁵. It is based on the will to favor the promotion of the city's sustainable development through citizens' shared projects and sees the participation of the Municipality as cofounder of the projects that citizens choose to fund – for example, if a selected project on the platform achieves the 50% of the total budget, the Municipality will give the remaining 50% (Ramos, 2016). Other public processes used for stimulating these efforts are a public registry which recognizes, for example, coworking spaces or sharing economy actors, open calls for funding, support and access to unused spaces and other means.

35 https://tinyurl.com/y8tezx28

Projects are often multi-year, multi-actor processes, often centered around shared spaces and incubators that aim to revive a resilient city economy and collaborative production. The context is a longer-term paradigm shift towards participating, sharing, resilience, sustainability and inclusion with the city as enabler. The city also organizes public events for deepening the self-reflection and collective learning of sharing economy actors.

The city of Frome

Frome is a town of 26,000 inhabitants located in Somerset, England. In 2011, a group of local activists, disillusioned with the dominance of political parties, decided to come together and put up candidates for all of the town council's seats. Thus, the Independents for Frome (IfF)³⁶ group was created with the aim to 'take political power at a local level, then use it to enable people to have a greater say in the decisions that affect their lives' (Hicks, 2016). IfF operates primarily at election times, by enabling independent candidates to stand local elections in Frome. The councillors elected can then work without party political ideology to make the best decisions they can for Frome, without a formal leadership.

At the local elections of May 2011, IfF got the majority on the town council. Since then, it has initiated, developed and led a series of projects to better understand the needs of the local community. To begin with, IfF councillors were instrumental in setting up Frome Development Community Interest Company, which enables individuals, groups and organisations to undertake projects in the areas of sustainable economic development; social cohesion and community building; and 'social health' (IfF, 2017).



IfF has also led a joint venture between the council, community group Sustainable Frome, and Bath & West Community Energy to set up Frome Renewable Energy Cooperative³⁷. The aim is to provide a vehicle for local people to invest in, and get a reasonable return from, renewable energy projects with the surplus going to a Community Fund (Macfadyen, 2015).

- 36 http://iffrome.org.uk/
- 37 http://freco.org/

Moreover, in 2015, the council put up funding for social enterprise Edventure-Frome³⁸ to get a new 'share shop'. It is called Share – A Library of Things³⁹ and is a place for people to connect, share skills and borrow objects for nominal sums, from drills and rollerblades to sewing machines and circular saws (Williams, 2015). This project is an attempt to reduce waste and train young people. The ultimate goal is to help participants become successfully self-employed through doing something that has a community benefit (Williams, 2015).

Last but not least, IfF has been working on promoting the practices developed in Frome. The speedy creation and unexpected success of IfF generated a lot of enthusiasm and the idea is spreading. Notably, the Flatpack Democracy book, which captures the model of local politics developed by IfF, has sold more than 1,000 copies (Harris, 2015).

In all, IfF seems to have succeeded in reviving public interest in local issues in a sizeable town. In Frome, people now take a particular interest in what is happening in their own locality and in enhancing the local wellbeing. However, the majority of voters might have not noticed any big changes, since achieving increased, meaningful participation is a long process.

The city of Ghent

Ghent (Belgium) is a dynamic city of nearly 300,000 inhabitants including a significant number of young people and students. It is a city in which the commons already have a distinct presence, with the support from an active and engaged city administration. A tradition of center-left coalitions have created a distinct political and administrative culture with many engaged city officials. For example, the city is actively engaged in carbon reduction, traffic reduction, and has neighborhood facilitators, social facilitators, connectors in schools, and other types of staff who are actively engaged in enabling roles at the local level. Additionally, the city has an important policy to support the temporary use of vacant land and buildings by community groups (Bauwens & Onzia, 2017).

During the spring of 2017, Michel Bauwens, with the collaboration of Yurek Onzia, prepared a commons transition plan for the city of Ghent (Bauwens & Onzia, 2017). The plan was based on: an analysis of 500 commons-oriented

- 38 http://edventurefrome.org/
- 39 https://sharefrome.org/

initiatives in all sectors of human provisioning (e.g. food, shelter, mobility, etc); 80 individual meetings with leading commoners; a questionnaire returned by 70 participants; 9 workshops, one for each domain of provisioning (e.g. 'food as a commons'); and 1 workshop on their economic models.

One of the most important qualitative findings of this study were that the rapid proliferation of urban commons is real and rather astounding. It confirms the data by Tine De Moor (2013) for the Netherlands and by Oikos (2016) for Flanders, that the number of commons-based civic initiatives has risen tenfold in a decade.

In addition, the basic format of the urban commons economy confirms many of the earlier findings concerning the commons-based digital economy. One finds the same triarchical structure combining open and contributory productive communities, supportive infrastructure in the form of for-benefit associations, and the emergence of a new 'generative' economy which creates livelihoods for the commoners and allows for the expansion of the commons.



Through this study, it becomes evident that citizens have taken it upon themselves to engage in 'commoning infrastructure', and every single area of human provisioning has signs of emerging commons-based alternatives, present in seed forms. For example, regarding housing, there is a commons-based organization for taking land out of the market (CLT Gent is a community land trust organization); for cooperative housing (collective ownership of the housing stock through Wooncoop); and for mutualizing living arrangements there is a thriving co-housing movement (cohousing.be), with multiple initiatives throughout the city. This same image is repeated in other sectors, especially food, energy, and mobility. It should be stressed that in each sector,

these alternatives are marginal, but at the same time, they are growing substantially and are developed enough to show the viability of systemic alternatives that are based on the commons. Their relative weight depends on the sector of activity, and for example, the commons-centric models in the food sector are much more developed than those in housing. This may be a function of the ease of finding the required capital goods, but also on the weight of hostile regulation.

Further, the study suggests that urban commons are not exclusively local, but rather, as Ezio Manzini (2010) has discovered, they are 'small, local, open, and connected'. In other words, they express the dynamic of cosmo-localism, inserting themselves in global open knowledge commons, but co-governing the material resources locally. Also, urban commons participate in the growth of autonomy and participatory culture, which has an effect on the logic of city administration. City leaders and functionaries know these commons exist, frequently support them, and are seeking new forms of institutionalization. However, in general it is the case, including in Ghent, that city officials are more at ease with 'participation', which is most often a top down model of consultation in control of city officials, than with 'contribution' or contributory democracy, which forces the city to take into account the wishes of already active citizen initiatives, and could be considered a bottom-up model.

Nevertheless, the already existing links between the commons sector and the public sector are illustrated by Figure 5, which clearly shows the fine-grained support mechanisms that exist between the public and the commons initiatives.

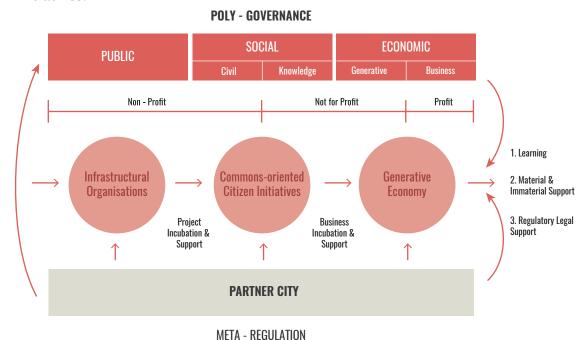


Figure 5: A conceptual map of the urban commons economy and potential public interventions

Indeed, there is evidence of at least five types of governmental involvement in the process of creating and sustaining commons-based initiatives:

- Support of commons-supporting infrastructural organizations, such as the support for the NGO 'Samenlevingsopbouw', which works in the migrant-centric neighborhood of Rabot;
- Support for the incubation of commons-projects, for example through temporary use of places;
- Direct support for ongoing commons-based initiatives;
- Support for the incubation of economic entities which can support these commons-based projects;
- Direct support for ongoing business projects.

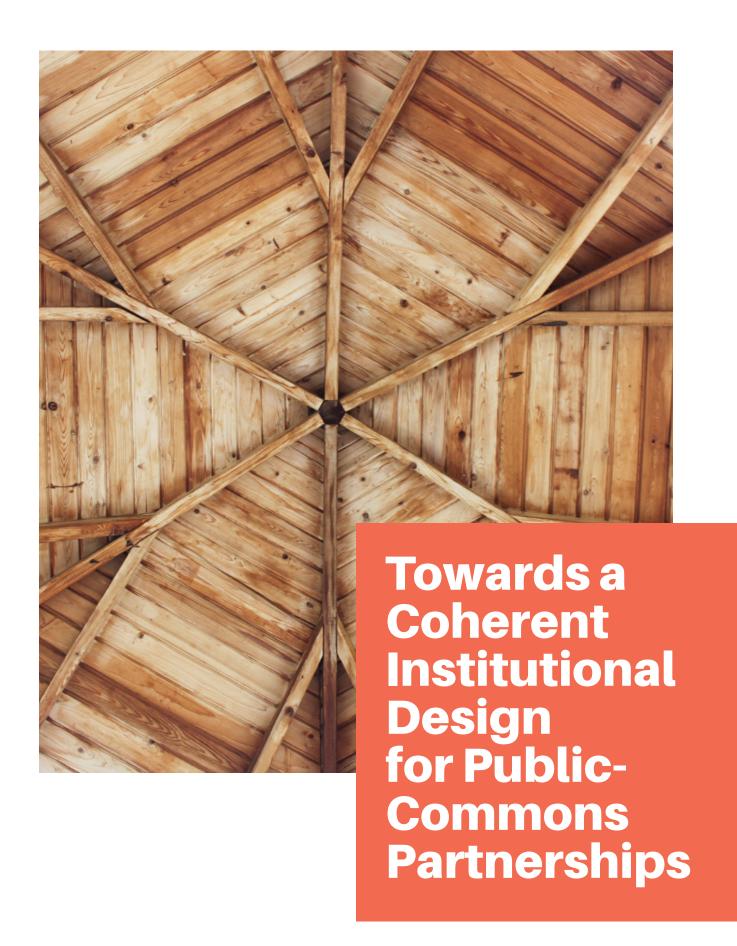
However, the aforementioned positive aspects observed in the city of Ghent should be tempered by the following issues:

- Both the efforts of the city and the commoners' initiatives are highly fragmented;
- There are many regulatory and administrative hurdles to hinder the expansion of commons initiatives (e.g. in the field of mutualized housing the authors received a 7 page memo of such obstacles from activists);
- Though there are a number of fablabs/co-working spaces and some craft-related initiatives, as yet there are very few activities around open design linked to real production;
- Though blessed with a large university, which is active around sustainability issues, there is very little evidence of relations between the university and the commons projects, and some of its spin-offs are sometimes hostile to open source projects;
- Though many of the leading commons activists are facing precarious lifestyles and incomes, they usually have good social and knowledge capital and mostly consist of the more established inhabitants. There are many commons projects in the post-migration communities, but they are mostly limited to their own ethnic and religious memberships, and there is relatively little crossover;

- Civil society organisations play a significant infrastructural and support role for maintaining urban commons projects, but seem to see them as mostly useful for vulnerable population groups and not as key and highly productive resources;
- Despite city support, the major potential commons are largely enclosed and vulnerable to private extraction. The current models do not challenge the mainstream consensus but find a way to co-exist with the major imbalances; for example, while the city supports the temporary use of empty grounds, it is much less active in challenging neoliberal real estate speculation;

Despite its long history of self-organization with the guilds in the middle ages and a very strong labor movement in the 19th century, the cooperative sector and its support mechanisms are quite weak. There is a feeble if not inexistent support infrastructure for a specifically generative and cooperative economy that could work with commons infrastructures. Nearly all the well-funded business support organized by the city goes to classic start-ups and businesses.

What we have observed in Ghent is not an isolated case. As seen in Sections 2.1 and 2.2, the developments we have witnessed there echo what has happened in other European, and global cities. Chapter 3 will address those issues, which are not uncommon in other cities with strong urban commons developments. We have proposed new forms of public-commons partnerships and the commonification of public services that address those weaknesses and seek to facilitate a shift from cities having urban commons, to seeing the 'city as a commons'.



3. Towards a Coherent Institutional Design for Public-Commons Partnerships

3.1 The basic concepts underlying publiccommons partnerships

Thinking of social and political change in terms of a commons transition strategy requires a profound rethink of our existing institutional mix, and somewhat of a new vocabulary. What follows is a short introduction to this vocabulary, which is important to understanding our institutional design proposals in this chapter.

In Section 1.1 we made the argument, based on the insights of Karatani (2014) and Polanyi (1944), that the crisis of the capital-state-nation is systemic, and that the current task of societal transformers is not just a restoration of this triad, but a simultaneous transformation of each of them into a new system configuration centered around the commons as central mechanism. This new system, by analogy of the institutional emergence of 'really existing peer production', appears as follows:

- It puts the commons (and not the market) at its center, and civic society becomes the locus of the institutions of the commons. All inhabitants are considered to be productive commoners, co-constructing the various commons that fit their passions, skillsets and social needs;
- The market is transformed towards a generative market, which serves the accumulation of the commons (not the accumulation of capital).
 Or alternatively, where the accumulation of capital directly serves the accumulation of the commons; and
- The state or common good institutions, such as the city and its institutions, are seen as facilitating mechanisms to create the right public frameworks for individual and social autonomy. They enable and facilitate commons-friendly infrastructures. We have called this the Partner State model (Bauwens & Kostakis, 2014; Kostakis, 2011) and can speak of the Partner City as the equivalent on the scale of the urban.

This vision has profound consequences for institutional design. First, it requires a move away from binary thinking, i.e. the market-state binary, to a triarchical format. We need institutions for all three, i.e. the commons, the state, and the market, but with the commons at the core. This also means a move away from public-partnerships, towards public-commons partnerships. These partnerships are augmented by generative market entities, eventually also with classic market entities moving in the direction of generativity.

The poly-governance mechanisms and institutions discovered by Elinor Ostrom (1990) as the hallmark of the management of commons resources becomes the new normal in institutional design. Poly-governance structures, possibly matched by appropriate property mechanisms, consists at least of the three levels (commons, state and market) but can be even more fine-grained, as the work of Foster & Iaione (2016) has suggested⁴⁰.

For the bureaucratic state functions that get their legitimacy exclusively from electoral majorities, this means a change towards the commonification of public services, in which the traditional and bureaucratic hierarchies are augmented, transformed, or replaced, by poly-governance models of participation and deliberation that include commoners and other stakeholders. The logic of representation needs to be augmented by the logic of contribution, towards the model of a super-competent democracy or 'democracy+'. Please note there is a tension between the participatory mode of democracy, which can be seen as a top-down mode of consultation under the direction of the city, and contributory democracy, whereby the city has to adapt to pre-existing practices from its most active citizens. We are proposing the latter model.

Public-commons partnerships and the commonification of public services in the context of a partner state mean the possibility of making 'Commons Accords', i.e. agreements between the 'partner city' and the commoners.

In economic terms, seeing society as commons-centric means the reorganization of the main provisioning systems around commons-based models. In our conclusions from our study in Ghent (Bauwens & Onzia, 2017), we have seen that commons-centric seed forms exist for every existing provisioning system, such as food, shelter, mobility etc., and they are going through significant growth and the early beginnings of integration. Our proposal will show how the city administration can integrate and work with the emerging commons formats, essential for sustainable production models and climate change goals.

This new logic has also important implications for economic policy. In the

These authors propose a 'quintuple helix' model of poly-governance in the cited work.

longer term, it requires thinking about generative, not extractive, models of economic activity. This means thinking around the key fault line: Does a particular economic activity not only show compatibility with the carrying capacity of its supporting environment but 'generate value for both its natural resource base, and the human communities that are co-creating the commons on which these economic entities are co-dependent'? In the short term, it means setting up the required support frameworks so that generative commons practices get the same level of support as the classic extractive models of the economy.

Below we also introduce concepts aimed at a convergence between the commons and generative economic forms:

- Open cooperatives: Cooperative economic forms that are generative vis
 a vis the commons, i.e. they can accept the contributory logic of the
 commons and help expand the commons by creating livelihoods for the
 commoners. Open cooperatives are distinct from cooperative models that
 are merely 'collectively capitalist', i.e. they compete in the marketplace
 for the benefit of their members only.
- Platform cooperatives: Collectively owned platforms for the exchange economy, in which the platform itself is a commons. These are an alternative to the extractive platform capitalism promoted by firms like Uber and AirBnB, which exhibit many negative social and environmental externalities.
- Protocol cooperativism: Open and platform cooperatives mutualize the technical knowledge and infrastructures which they need to operate, thereby avoiding wasteful fragmentation and wasted efforts.

We believe cities have a role in supporting the creation of these universal commons infrastructures which can be used by various cities and adapted to local circumstances. Think of a MuniBnb, a public-commons alliance of cities and commoners which would hold the 'protocols' to enable fairly distributed hospitality services.

3.2 How is the Commons Transition Plan in Ghent related to the FLOK Society Project in Ecuador?

In 2014, Michel Bauwens was asked to direct a research project for a Commons Transition Plan for the government of Ecuador, which was requested by three governmental institutions⁴¹. This was done during a six-month period with a team of six researchers drawn from the P2P Foundation network. The remit was to research how to plan a transition towards a 'social knowledge economy'. This would transform Ecuador from a country dependent on limited extractive resources, such as mining or agricultural exports, to a country dependent on abundant immaterial resources, such as knowledge and culture.

This work resulted in a Commons Transition Plan (Bauwens, 2014), which had a more limited focus than the research and plan for Ghent. Indeed, given the remit, we had to focus on imagining how the Ecuadorian society and economy would organize itself around knowledge commons for each domain of activity (scientific commons, education commons, etc.). Although this allowed us to look at the material preconditions for each of these knowledge commons, it did not allow us to focus directly on the material commons and provisioning systems, as we could do in Ghent. Nevertheless, the ability to do a first thorough research and scenario planning exercise on the mechanics of a commons transition, was still a historical first and the work in Ghent was greatly facilitated by this prior experience.

We should also add that the political context was entirely different. In Ghent, we could count on the enthusiastic support of the city coalition, of engaged functionaries and a fairly mature commons sphere in the city. In contrast, factions in the Ecuadorian government were staunchly opposed to this work, and Ecuador had a sociology that was very limiting in terms of potential social support for such a program. The uptake of our proposals was therefore very small, except for some limited advances regarding intellectual property law, and it could be argued that the Ecuadorian government even took a sharp extractive turn afterwards, as exemplified by its decision to open up Yasuni National Park to oil extraction (Vidal, 2016).

In all, the urban context seemed much more mature than the nation-state level, in terms of the kind of transition described here. While building on this prior experience, our proposals for Ghent go much further in detail, as they focus both on material provisioning systems and on public-commons institutional design, not just on 'immaterial' knowledge commons.

The National Institute of Advanced Studies; the Coordinating Ministry of Knowledge and Human Talent; and the National Secretary for Science and Innovation.

3.3 A three-pronged strategy for the commons transition

How do we get from the current market state and market city configurations to commons-centric institutions? We believe that the model of the Energiewende in Germany shows a workable strategy for social, political and institutional change. We propose therefore a strategy in three phases⁴²:

- The first phase is the emergence and formation of alternative commonsbased seed forms that solve the systemic issues of the current dominant political economy. For example, the carbon-producing activities of fossil fuel extraction needs to be replaced by a strategy focusing on the development and expansion of renewable energy. We are seeing that successful transitions, as those in Germany, depend on a large part on civic mobilization around commons-centric models of provisioning, such as the emergence of community-owned energy cooperatives. In this first phase, the focus is on promoting commons alternatives and their interconnection into integrated sub-systems, first of all within and then across provisioning systems. This emergence and expansion of commons-based alternatives is matched by the necessary growth of social, and eventually, political power. For example, in the case of Energiewende, the growth of energy coops was matched by the political power of the Greens, and the realization after Fukushima by Merkel of the dead-end and dangers of nuclear power (Mueller 2017).
- The second phase is a regulatory and institutional phase in which
 the right frameworks are put in place. Without proper frameworks
 and supportive regulations, the commons-centric model would have
 remained marginal and grown much more slowly. But once the feedin tariff was in place, the new models could expand to the broader
 population, as they were 'facilitated' by incentives that made the
 commons-based alternative economically interesting for non-idealistic
 citizens.
- The creation of the proper regulatory support and new institutional design creates the basis for the third phase, i.e. the normalization of the new practices from the margins to the new normal. In this phase, generative market forms support the continuing expansion of the commons-centric practices, with support from the partner state or partner city institutional frameworks.
- This strategy is a simplified version of what is described in the the 'multi-level perspective' literature of social change, a heuristic model distinguishing and articulating the complex dynamics between the 'niches', 'regimes' and 'landscape' levels of 'socio-technical systems' (Geels, 2010).

It becomes obvious that these three phases are not entirely separated and follow up on each other, but that they significantly interpenetrate. A significant amount of commons-based seed forms are required to even know what kind of supportive institutional frameworks will be most adequate. Similarly, the generative economic frameworks enabled by the regulatory institutions need sufficiently strong commons to depend on.

Finally, this scheme is of course focused on the political economy and structural aspects of change that cannot be undertaken without significant cultural, intersubjective and subjective changes. Those are not examined in the context of this treatment.

3.4. An institutional design for the city administration

We can now proceed to the description of our proposals as featured in the Commons Transition Plan for the city of Ghent⁴³ (Bauwens & Onzia, 2017). The general logic of our proposals is to put forward realistic but important institutional innovations that can lead to further progress and expansion of the urban commons, so that it can successfully achieve its ecological and social goals. We propose public-social or public-commons based processes and protocols to streamline cooperation between the city and the commoners in every field of human provisioning.

The following figure shows the basic collaboration process between commoners and the public good institutions of the 'partner city'.

We are not fully summarizing all proposals here, which are available in the official Dutch-language report which is in the process of being translated to English in full, but merely the underlying logic.

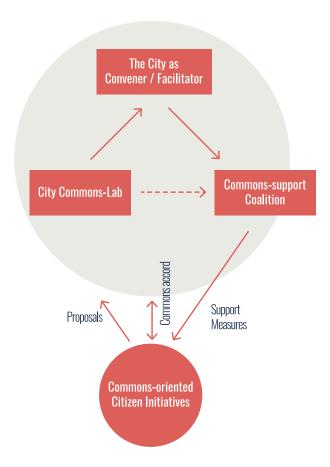


Figure 6: The basic processes for public-commons collaboration

As we can see, commons initiatives can forward their proposals and need for support to a City Lab, which prepares a 'Commons Accord' between the city and the commons initiative, modeled after the Bologna Regulation for the Care and Regeneration of the Urban Commons. Based on this contract, the city sets up specific support alliances which combine the commoners and civil society organisations, the city itself, and the generative private sector, in order to organize support flows.

This first institutional arrangement described here allows for permanent ad hoc adaptations and the organization of supportive frameworks to enable more support for the common-based initiatives. But just as importantly, this support needs to be strategized in the context of the necessary socio-ecological transitions, which is the purpose of the second set of proposals, as outlined in the following figure:

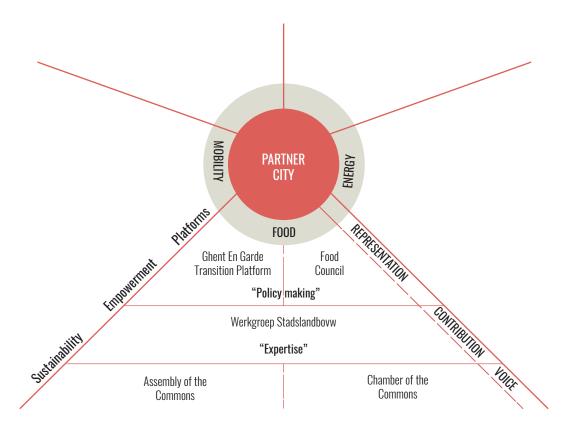


Figure 7: A public-commons institutional design for the social and ecological transition

This figure describes a cross-sector institutional infrastructure for commons policy-making and support, divided in 'transitional platforms" or as we call them on the figure 'Sustainability Empowerment Platforms'. The model comes from the existing practice in Ghent around the food transition, which is far from perfect and has its problems, but nevertheless has in our opinion the core institutional logic that can lead to more successful outcomes in the future.

The city has indeed created an initiative called Gent en Garde, which accepts the five aims of civil society organisations active in the food transition (local organic food, fairly produced) that works as follows: The city has initiated a Food Council, which meets regularly and contributes to food policy proposals; it is representative of the current forces at play and has both the strength and weaknesses of representative organisations; but it also counts in its membership, the 'urban food working group', which mobilizes those effectively working at the grassroots level on that transition; the group follows a contributive logic, where every contributor has a voice. In our opinion, this combination of representative and contributory logic is what can create a super-competent Democracy+ institution that goes beyond the limitations of representation and integrates the contributive logic of the

commoners. This model mixes the representative logic and its legitimacy, the expertise available in public institutions, but crucially augments it with the contextually rich experience and expertise of the grassroots experts. It is further augmented with the expertise of the generative businesses that are engaged in the necessary socio-ecological transitions.

But how can the commoners exert significant political weight so that political and representative institutions will actually 'listen' to them? This requires 'voice' and self-organisation. We therefore propose the creation of an Assembly of the Commons for all citizens active in the co-construction of commons, and a Chamber of the Commons for all those who are creating livelihoods around these commons, in order to create more social, economic and ultimately, political power for the commons (see Section 2.1).

This essential process of participation that we have seen in the food transition area can be replicated across the transition domains, obtaining city and institutional support for a process leading to Energy as a Commons, Mobility as a Commons, Housing, Food, etc. These 'transition arenas' or 'sustainability empowerment platforms' integrate the goals and values necessary for a successful socio-ecological transition and allow for a permanent dialogue amongst all the stakeholders involved.

With this, we conclude the minimal generic structures that we believe a Partner City needs to support a transition towards commons-based civic and economic forms which can be integrated in democratic structures of representation, enriching and complementing them, while stimulating the individual and collective autonomy of its citizens organized as commoners.

3.5. Other proposals

Some of the proposals included in the Ghent study merit special attention:

- A project to test the capacity of 'cosmo-local production' to create meaningful local jobs (organic food for school lunches) and to test the potential role of anchor institutions and social procurement;
- A pilot project around 'circular finance' in which 'saved negative externalities' that lead to savings in the city budget wich can directly be invested in the commons projects that have achieved such efficiencies (e.g re-investing the saved cost of water purification to support the acquisition of land commons for organic farmers); and

 As pioneered by the NEST project of temporary use of the old library, use more 'call for commons' instead of competitions⁴⁴ between individual candidates. A 'call for commons' rewards the coalition that creates the best complementary solution between multiple partners and open sources its knowledge commons to support the widest possible participation.

Earlier in this report, we mentioned the experiment and prototypal work of Lunch met LEF, an initiative that aims to re-introduce healthy organic, local and 'fair' food to the city's communal public schools, which serve five millions meals a year. It is an example of the kind of change that could be effected on the level of meaningful work and engagement, and real employment that involves all types of workers. We believe this is very important, as the rightwing populist movements are largely determined by the decline of well paid blue collar work. In this particular case, food would be sourced from urban and peri-urban farmers in the city and bioregion around Ghent, strengthening the generative food economy; a zero-carbon transportation system (cargobikes), would generate a second level of employment, with a final third layer of local cooking in the schools. These effects are congruent with our vision of 'cosmolocal production' (design global, manufacture local), outlined in Chapter 1, combining the world's knowledge on healthy food and agricultural production, suitably contextualized, with relocalizing production and job opportunities. It is also congruent with the research showing that 'Locally owned, importsubstituting (LOIS) businesses' produce less 'leakage' and more employment and benefits for the local economy, alongside the obvious ecological advantages in terms of the biocapacity and carrying capacity of the region. If successful, and the 90% organic local production for Copenhagen's schools shows that it can be, this model could be generalized by using the combined power of anchor institutions and social procurement. Anchor institutions are the institutions such as hospitals, schools, universities, public institutions, that are normally present in every neighborhood, and whose mighty combined procurement power can be used to finance such a shift and create more local employment in socially useful and meaningful work occupations. This strategy was pioneered with the Evergreen Cooperative model in Cleveland, Ohio and Preston, UK. In this vision, the city supports local cooperative organizations that can service the anchor institutions. Social procurement is that wich integrates quality, social and ecological considerations in its briefs, legal even under the WTO regime, but wich also choose to divvy up procurement in order to make it

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more attractive to local business and less so to large external players. It has been practiced in Scotland, for example.

Investments in this area are related to the circular finance concept. Mainstream businesses are wont to ignoring negative social and environmental externalities in order to bring costs down and remain competitive. However, the costs of these externalities are routinely passed on to the public purse. This also means that cost savings in this area can be used to fund the transition and the above-described job-creation strategy. Terre des Liens is a successful community land trust movement in France which buys land to put it outside the market and offers cheap rents to organic farmers. They told us about advanced discussions with local water authorities in France, since they realize that organic farmers substantially reduce the need to recycle and clear water (as well as substantial decreases in health expenditures). It is therefore possible to imagine agreements where by a percentage of such savings is used in a virtuous feedback loop to fund eco-social transitions that further reduce negative externalities. Large business firms like IBM have already practiced this by investing in Linux, the free software that substantially reduces the private investments of IBM.

The third important innovation we propose is the 'call for commons', pioneered by the NEST project, a temporary arrangement by a wide coalition of cultural initiatives to use the empty buildings of an old library, consisting of eight floors. While classic funding and procurement competitions divide and rule, privatizing the knowledge and leading to huge waste of efforts, a call for commons is effectively its opposite: it stimulates cooperation, commonifies the knowledge and avoids the waste. In a call for commons, the best cooperators are stimulated to create complementary coalitions. Over one month, the NEST coalition was able to offer a full use of the capacities of the building, with 70 participating organisations presenting a combined project, which included an open and contributive accounting system for the rent, in which the most active and nonprofit oriented projects paid much less than for-profit businesses. We believe such a call for commons should be institutionalized as a new protocol and institution for funding projects.

Apart from the aforementioned projects, we also propose the following:

 The creation of a judicial assistance service consisting of at least one representative of the city and one of the commoners, in order to systematically unlock the potential for commons expansion by finding solutions for regulatory hurdles.

- One of our main findings was that commons-based initiatives face a
 multitude of obstacles to develop their new practices, and not just a lack
 of support. For example, in the housing sector, most legislation consists
 of promoting private housing and its speculative effects, and social
 housing with its bureaucratic rules and limitations.
- The creation of an incubator for a commons-based collaborative economy, which specifically deals with the challenges of generative start-ups.
 - Nearly all support mechanisms are still geared towards extractive models of business, such as the venture-capital start-up model, most often designed to obtain quick market dominance and an exit of the founders, which often means that the investment will not benefit the region in the long term. These existing incubators are usually hostile to the creation of open knowledge commons and seek to privatize knowledge. Young entrepreneurs often don't know a that there are generative alternatives, and don't know where to find the right advice and support for these emerging practices.
- The creation of an investment vehicle, the bank of the commons, which
 could be a city bank based on public-social governance models.
 There is revival of public banking in the U.S. and other countries, given
 the failure of traditional banks to sufficiently invest in local productive
 economies rather than speculative ventures. The revenues of a city can
 be stored in a public-commons bank dedicated to local investment.
- Augmenting the capacity of temporary land and buildings towards more permanent solutions to solve the land and housing crisis affecting commoners and citizens.
 - Temporary use programs, while very useful, do not solve the longer term issues created by ongoing real estate speculation and the rarefaction of urban land.
- Support of platform cooperatives as an alternative to the more extractive forms of the sharing economy. Assisting the development of mutualized commons infrastructures ('protocol cooperativism'), through inter-city cooperation (avoiding the development of 40 Uber alternatives in as many cities).
 - We suggest support for the development of local alternative platforms which keep the value in the region, but also the interlinking of leagues

of cities to support the generic and universal infrastructural base needed for avoiding fragmented and repetitive investment and efforts.

 Make Ghent 'the place to be' for commoners by using 'Ghent, City of the Commons' as an open brand, to support the coming of visitors for commons-conferences, etc.

We believe there is an important opportunity to brand the city as a commons—city, attracting visitors who can learn from the experience, and contribute to the transition in Ghent.

With this, we conclude our review of a potential new institutional design for urban-centric transitions towards a commons-centric economic and societal development. This would allow for mutual recognition and support of the three key actors that should be at the core of a mobilization for such a transition:

- A vibrant field of citizen activity around shared resources and provisioning systems;
- A vibrant field of generative economic entities which create livelihoods for participating citizen-commoners and added value for society as a whole;
- A vibrant field of public-commons 'common good' institutions that create the right and stimulating frameworks for personal and social autonomy.

While Ghent obviously provided a specific local context for this work, we do believe that some of the aspects described above do transcend the limitations of space and time, and could inspire other partner cities to start evolving in the same direction. How to imagine such a global cooperation is the final topic of this report.

3.6. Towards a global infrastructure for commonsbased provisioning

We have argued in this overview that we are in a conjuncture where commons-based mutualizing is one of the keys for sustainability, fairness and global-local well-being. In this conclusion, we suggest a global infrastructure in which cities can play a crucial role.

See the graphic below for the stacked layer that we propose, which is described as follows:

- The first layer is the cosmo-local institutional layer. Imagine global forbenefit associations which support the provisioning of infrastructures for urban and territorial commoning. These are structured as global public-commons partnerships, sustained by leagues of cities which are co-dependent and co-motivated to support these new infrastructures and overcome the fragmentation of effort that benefits the most extractive and centralized 'netarchical' firms. Instead, these infrastructural commons organizations co-support MuniRide, MuniBnB, and other applications necessary to commonify urban provisioning systems (Orsi, 2015). These are the global "protocol cooperative" governance organizations.
- The second layer consists of the actual global depositories of the commons applications themselves, a global technical infrastructure for open sourcing provisioning systems. They consists of what is globally common, but allow contextualized local adaptations, which in turn can serve as innovations and examples for other locales. These are the actual 'protocol cooperatives', in their concrete manifestation as usable infrastructure.
- The third layer are the actual local (urban, territorial, bioregional) platform cooperatives, i.e. the local commons-based mechanisms that deliver access to services and exchange platforms for the mutualized used of these provisioning systems. This is the layer where the Amsterdam FairBnb and the MuniRide application of the city of Ghent organize the services for the local population and their visitors. It is where houses and cars are effectively shared.
- The potential fourth layer is the actual production-based open cooperatives, where distributed manufacturing of goods and services produces the actual material services that can be shared and mutualized on the platform cooperatives.

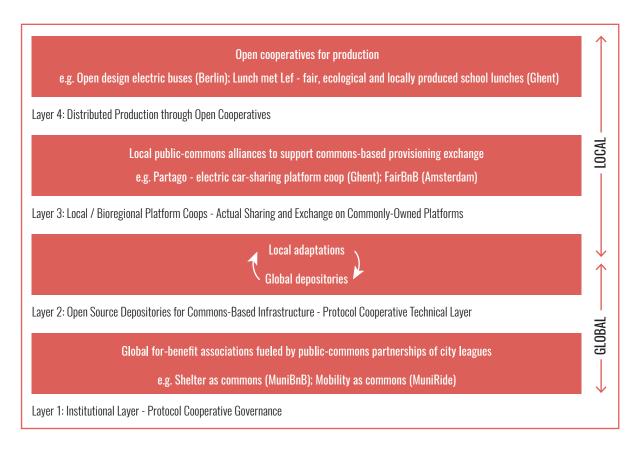


Figure 8: City-supported cosmo-local production infrastructure.

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References

Ajuntament de Barcelona (2017b). Barcelona: Collaborative policies for the collaborative Economy. SlideShare. Retrieved from: https://www.slideshare.net/Barcelona_cat/bcn-digital-barcelona-collaborative-policies-for-the-collaborative-economy.

Baird, K.S. (2015). Beyond Ada Colau: The common people of Barcelona en Comú. OpenDemocracy. Retrieved from: https://www.opendemocracy.net/can-europe-make-it/kate-shea-baird/beyond-ada-colau-common-people-of-barcelona-en-com%C3%BA.

Bausells, M. (2016). Superblocks to the rescue: Barcelona's plan to give streets back to residents. The Guardian. Retrieved from: https://www.theguardian.com/cities/2016/may/17/superblocks-rescue-barcelona-spain-plan-give-streets-back-residents.

Bauwens, M. (2013). Proposed next steps for the emerging p2p and commons networks. *P2P Foundation*. Retrieved from: https://blog.p2pfoundation.net/proposed-next-steps-for-the-emerging-p2p-and-commons-networks/2013/04/02.

Bauwens, M. (2014). A commons transition plan. *Commons Transition*. Retrieved from: http://commonstransition.org/a-commons-transition-plan/.

Bauwens, M. (2015a). Assembly of the commons. *P2P Foundation*. Retrieved from: http://wiki.p2pfoundation.net/Assembly_of_the_Commons.

Bauwens, M. (2015b). Interviewed: Professor Christian Iaione on the city as commons. Shareable. Retrieved from: http://www.shareable.net/blog/interviewed-professor-christian-iaione-on-the-city-as-commons.

Bauwens, M. (2016). Why the p2p and commons movement must act translocally and trans-nationally. *P2P Foundation*. Retrieved from: https://blog.p2pfoundation.net/p2p-commons-movement-must-act-trans-locally-trans-nationally/2016/06/16.

Bauwens, M., & Kostakis, V. (2014). *Network society and future scenarios for a collaborative economy*. Basingstoke, UK: Palgrave Macmillan.

Bauwens, M., & Niaros, V. (2017). Value in the commons economy: Developments in open and contributory value accounting. *Heinrich Boll Foundation*. Retrieved from: https://tinyurl.com/yc9zhqtw.

Bauwens, M., & Onzia, Y. (2017). Commons Transitie Plan voor de stad Gent. In opdracht van de stad Gent. Retrieved from: https://tinyurl.com/ybyj5qd4.

Bergren-Miller, A. (2017). Barcelona crowdsourced its sharing economy policies: Can other cities do the same? Shareable. Retrieved from: http://www.shareable.net/blog/barcelona-crowdsourced-its-sharing-economy-policies-can-other-cities-do-the-same.

Bobbitt, P. (2002). The shield of Achilles: War, peace, and the course of history. London: Penguin.

Bollier, D. (2012). The mayor of Naples champions the commons. Retrieved from: http://www.bollier.org/mayor-naples-champions-commons.

Bollier, D. (2015). Bologna: A laboratory for urban commoning. Retrieved from: http://bollier.org/blog/bologna-laboratory-urban-commoning.

Bollier, D. (2016). Barcelona's brave struggle to advance the commons. P2P Foundation. Retrieved from: https://blog.p2pfoundation.net/barcelonas-brave-struggle-to-advance-the-commons/2016/11/29.

Cillero, M. (2017). What makes an empty building in Naples a 'common good'?. Political Critique. Retrieved from: http://politicalcritique.org/world/2017/naples-common-good-empty-buildings/.

Dalakoglou, D. (2017). Infrastructural gap: Commons, state and anthropology. *City*, x(x), 822-831.

D'Antonio, S. (2015). How a regulation turned Bologna's civic pride into action. Citiscope. Retrieved from: http://citiscope.org/story/2015/how-regulation-turned-bolognas-civic-pride-action.

De Moor, T. (2008). The silent revolution: A new perspective on the emergence of commons, guilds, and other forms of corporate collective action in Western Europe. *International Review of Social History*, 53, 179–212.

De Moor, T. (2013). *Homo cooperans: Institutions for collective action and the compassionate society.* Utrecht: Utrecht University.

Delclós, C. (2015). Rebel cities and the revanchist elite. *ROAR Magazine*. Retrieved from: https://roarmag.org/magazine/rebel-cities-and-the-revanchist-elite/.

El Periódico (2016). Barcelona cierra el proceso participativo del PAM con 9.000 propuestas. *El Periódico*. Retrieved from: http://www.elperiodico.com/es/noticias/barcelona/barcelona-cierra-proceso-participativo-del-pam-con-9000-propuestas-5041286.

Fattori, T. (2012). Public-commons partnership and the commonification of that which is public. In: Living in dignity in the XXIst century: Poverty and inequalities from the human rights, democracy and commons perspective. Council of Europe- Social Cohesion Research and Early Warning Division.

Fiske, A.P. (1993). Structures of social life: The four elementary forms of human relations. New York: The Free Press.

Foster, S., & Iaione, C. (2016). The city as a commons. Yale Law & Policy Review, 34(2).

Geels, F.W. (2010). Ontologies, socio-technical transitions (to sustainability), and the multi-level perspective. *Research Policy*, 39(4), 495-510.

Gimpel, J. (1976). The medieval machine: The industrial revolution of the middle ages. New York: Penguin.

Harris, J. (2015). How Flatpack Democracy beat the old parties in the people's republic of Frome. The Guardian. Retrieved from: https://www.theguardian.com/politics/2015/may/22/flatpack-democracy-peoples-republic-of-frome.

Hicks, D. (2016). A climate change companion: For family, school and community. Retrieved from: http://www.teaching4abetterworld.co.uk/books/download24.pdf.

Iaione, C., Foster, S., & Bauwens, M. (2017, forthcoming). Towards a co-city: From the urban commons to the city as a commons.

IfF (2017). Launch of the Frome Development Community Interest Company (FDCIC). Retrieved from: http://iffrome.org.uk/2011to2014/2011/10/19/launch-of-the-frome-development-community-interest-company-fdcic/.

Karatani, Kojin. (2014). *Structure of world history: From modes of production to modes of exchange.* Durham: Duke University Press.

Kostakis, V. (2011). Commons-based peer production and the neo-Weberian state: Synergies and interdependencies. *Administrative Culture*, 12 (2), 146-161.

Kostakis, V., Bauwens, M., & Niaros, V. (2015a). Urban reconfiguration after the emergence of peer-to-peer infrastructures: Four future scenarios with an impact on smart cities. In Araya, D. (ed): *Smart cities as democratic ecologies* (116-124). New York, NY: Palgrave Macmillan.

Kostakis, V., Niaros, V., Dafermos, G., & Bauwens, M. (2015b). Design global, manufacture local: Exploring the contours of an emerging productive model. *Futures*, 73, 126-135.

LabGov (2014). Bologna regulation on public collaboration for urban commons. Retrieved from: http://www.labgov.it/2014/10/31/bologna-regulation-on-public-collaboration/.

Macfadyen, P. (2015). Flatpack Democracy: A DIY guide to creating independent politics. Bath: Eco-logic books.

Mahony, N. (2017). Department of the commons. OpenLearn. Retrieved from: http://www.open.edu/openlearn/society-politics-law/participation-now/department-the-commons.

Manzini, E. (2010). Small, local, open and connected: Design research topics in the age of networks and sustainability. *Journal of Design Strategies*, 4(1).

Mueller, T. (2017). Diversity is strength: The German Energiewende as a resilient alternative. The Source Network. Retrieved from: http://thesourcenetwork.eu/wp-content/themes/showcase-pro/images/Diversity%20is%20Strength%20 -%20FINAL.pdf

Musso, P. (2017). La religion industrielle. Fayard.

Neeson, J.M. (1993). Commoners: Common right, enclosure and social change in England, 1700–1820. Cambridge: Cambridge University Press.

Niaros, V. (2017). Towards a commons-oriented city: An overview of

developments in Europe. *Timelab*. Retrieved from: https://tinyurl.com/ycu2gvrp.

Niaros, V., Kostakis, V., & Drechsler, W. (2017). Making (in) the smart city: The emergence of makerspaces. Telematics & Informatics (in press).

Orsi, J. (2015). Three ways to put tech platforms into the commons. *The Nation*. Retrieved from: https://www.thenation.com/article/5-ways-take-back-tech/.

Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge, UK: Cambridge University Press.

Pirenne, H. (2014). *Medieval cities: Their origins and the revival of trade.* Princeton: Princeton University Press.

Polanyi, K. (1944). The great transformation. Boston, MA: Beacon Press.

Ramos, J. (2016). The city as a commons: A policy reader. Commons Transition Coalition. Retrieved from: https://www.academia.edu/27143172/The_City_as_Commons_a_Policy_Reader.

Rizos, X., & Piques, C. (2017). Peer to peer and the commons: A path towards transition. A matter, energy and thermodynamic perspective. *P2P Foundation*.

ROAR Collective (2015). Grassroots movements sweep into Barcelona town hall. ROAR Magazine. Retrieved from: https://roarmag.org/essays/barcelona-comu-election-victory/.

Russell, B., & Reyes, O. (2017). Eight lessons from Barcelona en Comú on how to take back control. OpenDemocracy. Retrieved from: https://www.opendemocracy.net/can-europe-make-it/oscar-reyes-bertie-russell/eight-lessons-from-barcelona-en-com-on-how-to-take-bac.

Sagrans, E. (2015). 6 lessons for the U.S. from Spain's democratic revolution. In these times. Retrieved from: http://inthesetimes.com/article/18001/6-lessons-for-the-u.s.-from-spains-democratic-revolution.

Smith, A., Fressoli, M., Abrol, D., Arond, E., & Ely, A. (2017). Grassroots innovation movements. Abingdon, Oxon: Routledge.

Spigarolo, F. (2017). Building 'cities for people': Barcelona superilles. LabGov. Retrieved from: http://www.labgov.it/2017/02/10/building-cities-for-people-barcellona-superilles/.

Vidal, J. (2016). Oil drilling underway beneath Ecuador's Yasuní national park. *The Guardian*. Retrieved from: https://www.theguardian.com/environment/2016/oct/26/oil-drilling-underway-beneath-ecuadors-yasuninational-park.

Walljasper, J. (2016). The city as a commons: From Flint to Italy. Common Dreams. Retrieved from: https://www.commondreams.org/views/2016/02/13/city-commons-flint-italy.

Whitaker, M. (2010). Ecological revolution: The political origins of environmental degradation and the environmental origins of axial religions; China, Japan, Europe. LAP Lambert Academic Publishing.

Williams, R. (2015). Somerset share shop offers a new kind of enterprise. The Guardian. Retrieved from: https://www.theguardian.com/society/2015/may/13/frome-share-shop-social-enterprise.

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