Final Report

Project: Commons Coproduction and territorial development in the Barcelona Metropolitan Area (cast: Coproducción pro-común y desarrollo territorial en el Área Metropolitana de Barcelona)

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ABSTRACT & Keywords

English
The project analyses the concentration and territorial articulation of pro-common co-production initiatives (initiatives through which citizens provide themselves with services with the support of local governments) in the Metropolitan Area of Barcelona (AMB) and their effects in terms of territorial development and socio-environmental justice. To do this, the project unfolds into a statistical analysis based on existing maps, and two territorialised case studies.

According to the statistical analysis, commons initiatives represent 40% of the 1,160 citizen initiatives mapped within the AMB. Commons activity is concentrated in 40% of the city of Barcelona. If we talk about it by sector, 50% of the common initiatives are in the "agro-ecology, energy and environment" and "culture and leisure" sectors. Approximately one third of this activity is carried out in collaboration with the government, which is mainly local.

The case studies show that commons initiatives have a positive impact on the promotion of the associative fabric and environmentally friendly value chains, as well as on social cohesion and the integration of vulnerable groups. The studies also illustrate the relative importance of different initiatives according to their position in the information and cooperation networks between them. Successful experiences of collaboration with the public administration are also highlighted, but also a certain sense of frustration and skepticism.

Key words: urban commons, co-production, Metropolitan Area of Barcelona, local public economy, spatial analysis, case study

Catalan
El projecte analitza la concentració i articulació territorial d'iniciatives de coproducció procomú (Iniciatives a través de les quals la ciutadania s'auto-proveeix de serveis amb el suport de governs locals) a l'Àrea Metropolitana de Barcelona i els seus efectes en termes de desenvolupament territorial i justícia socioambiental. Per fer-ho, es va dur a terme un anàlisi estadística a partir de les cartografies existents, i dos estudis de cas territorialitzats.

Segons l'anàlisi estadística, les iniciatives procomú representen el 40% de les 1.160 iniciatives ciutadanes cartografiades dins de l'AMB. L'activitat procomú es concentra en un 40% a la ciutat de Barcelona. Si es parla per sectors les iniciatives procomú s'engloben en un 50% en els sectors de "agroecologia, energia i medi-ambient" i "cultura i oci". Aproximadament un terç d'aquesta activitat es desenvolupa en col·laboració amb el govern, fonamentalment local.

Els estudis de cas mostren que les iniciatives procomú tenen un impacte positiu en la promoció de teixit associatiu i de les cadenes de valor respectuoses amb el medi ambient, així com en la cohesió social i la integració de grups vulnerables. Els estudis també il·lustren la importància relativa de diferents iniciatives en funció de la seva posició en les xarxes d'informació i cooperació que hi ha entre elles. També es destaca l'existència d'experiències d'èxit en quant a la col·laboració amb l'administració pública però també certa sensació de frustració i escepticisme.

Paraules clau: procomúns urbans, coproducció, Area Metropolitana de Barcelona, política econòmica local, anàlisi espacial, estudi de cas

Spanish

El proyecto analiza la concentración y articulación territorial de iniciativas de coproducción procomún (iniciativas a través de las cuales la ciudadanía se auto-provee de servicios con el apoyo de gobiernos locales) en el Área Metropolitana de Barcelona (AMB) y sus efectos en términos de desarrollo territorial y justicia socioambiental. Para hacerlo, se llevó a cabo un análisis estadístico a partir de las cartografías existentes, y dos estudios de caso territorializados.

Según el análisis estadístico, las iniciativas procomún representan el 40% de las 1.160 iniciativas ciudadanas cartografiadas dentro de la AMB. La actividad procomún se concentra en un 40% en la ciudad de Barcelona. Si se habla por sectores las iniciativas procomún se engloban en un 50% en los sectores de "agroecología, energía y medio-ambiente" y "cultura y ocio". Aproximadamente un tercio de esta actividad se desarrolla en colaboración con el gobierno, fundamentalmente local.

Los estudios de caso muestran que las iniciativas procomún tienen un impacto positivo en la promoción de tejido asociativo y de las cadenas de valor respetuosas con el medio ambiente, así como en la cohesión social y la integración de grupos vulnerables. Los estudios también ilustran la importancia relativa de diferentes iniciativas en función de su posición en las redes de información y cooperación que hay entre ellas. También se destaca la existencia de experiencias de éxito en cuanto a la colaboración con la administración pública pero también cierta sensación de frustración y escepticismo.

Palabras clave: procomunes urbanos, coproducción, Área Metropolitana de Barcelona, política económica local, análisis espacial, estudio de caso

Index

1. Introduction & justification

The financial crisis of 2008, the austerity policies that followed it and the urban uprisings around the planet during 2011 (Arab Spring, 15M, Occupy Wall Street, etc.) revealed the inability of governments to meet the growing social needs of the population and, at the same time, gave rise to the emergence of new citizen responses that offered solutions outside the state and the market. The diversity and nature of these initiatives is vast, including from cooperatives of the social and solidarity economy, to agro-ecological food consumption networks or informal family-care groups.

In response to the above, some governments, especially local ones (e.g., the Barcelona City Government), have started to provide direct and indirect support to the new initiatives, to ensure their consolidation over time. The different forms of collaboration between the administration and various citizen organizations that have ensued are examples of co-production. Co-production has been studied as a new public management model that allows public administrators to better diagnose and respond to territorial problems, and citizens to change and innovate the way Public Administration operates (Pestoff et al. 2012).

In Catalonia, and more specifically in the Barcelona Metropolitan Area, citizen initiatives have recently been studied and mapped out through various research projects using different conceptual frameworks (social innovation, social and solidarity economy, collaborative housing, etc.). However, the territorial dimension of these initiatives and their impact on territorial development has not been studied in-depth. To fill this gap, the project and findings presented here include a spatial characterization of the citizen initiatives that populate the Metropolitan Area of Barcelona, with a focus on those featuring the characteristics of "commons initiatives". Secondly, the project analyzes the territorial impact of said initiatives.

In commons initiatives, the direct users of the good or service produced are also responsible for producing and/or managing it collectively - (Benkler, 2007). More generally, the "commons" paradigm propose a reinterpretation of the economy, beyond the dichotomy between the market and the Modern Welfare State, from which to re-integrate the economic and the ethical, the individual and the collective (Foster and Iaione 2015). Building on this paradigm, the project questions whether "common co-production initiatives" as articulated and rooted in a certain geographical space, can give rise to alternative models of territorial development that are socially and environmentally just. In this aim, we ask the following research questions: Does the concentration of common co-production initiatives, articulated and rooted in a certain territory, produce socially and environmentally fair models of territorial development?

1.1 Background and state of the art

This study builds on three major research themes: the territorialization of public policies, commons initiatives and co-production.

A fundamental question in the study of the **territorialization** of public policies is to understand at what administrative level public services are best financed and provided. Traditionally, this question has been understood from the dichotomy of centralization vs. decentralization of competencies between state, regional and local governments. Currently, territorialization is understood more as an issue that concerns not only governments but also the third sector, private entities and the cooperative and associative world; and this implies not only a division

of tasks and authority but also the will and capacity for cooperation and conflict resolution among the different entities. Entities may manage services exclusively, but they are more likely to have to coordinate with other authorities at their own level or other levels to carry out some tasks. This is why "bottom-up" self-organization has to be complemented with important coordination and collaboration tasks. There is no one governance solution that fits all contexts. Different services and areas may require different arrangements.

Since the end of the last century, local governments in Catalonia have tended to promote participatory governance as a consultative form of participation by invitation (Bonet i Martí, 2014), promoted and directed by the public administration (top-down) with the aim of informing and listening to citizens. These mechanisms of participatory governance do not seem to fit the needs and characteristics of the present times (Parés et al., 2015). Evidence points to the need to think of new forms of participation that make citizens co-responsible for the entire process of drawing up and implementing public policies and that, as a result, enjoy their trust and complicity. In this sense, the **co-production** of public policies proposes a different way of understanding participation that is more in line with the characteristics of today's society and that can better respond to the new demands for transparency and democratization.

Unlike co-governance (participation of civil society and private actors in the processes of elaboration and planning of public policies), co-production refers to the mechanisms through which citizens lead the production of services with the involvement of the public sector (Pestoff et al., 2012). Public sector involvement can be direct (as part of the production process) or indirect (through various instruments such as regulation, funding, or fiscal stimulus). In public policy co-production processes, therefore, citizens take a central role, and are actively involved both in the design of the co-produced services or goods (diagnosis, decision, planning) and in their implementation. In other words, co-production has to do with the active involvement of citizens both in the definition of problems to be solved and in the production of goods and services of a public nature.

In practice, however, co-production is a broad concept that can be materialized in various ways. In recent years, there has been a proliferation of literature, discourses, research projects and social practices about co-production as well as a number of other related concepts such as "social innovation" or "urban commons". These concepts and practices refer to ways in which citizens and communities self-organize to address(new) collective problems. The co-production of public policies, therefore, would include a wide range of experiences depending on the form that said self-organization takes. Systematizing and characterizing the different forms of co-production is something that has not yet been done in Catalonia. In this project, we aim to fill that gap by characterizing and analyzing a specific type of co-production experience on a territorial basis, i.e. the coproduction featured by "commons" experiences.

The literature on **commons experiences** in the urban environment has grown exponentially in the last 10 years. Urban commons can be defined as urban spaces or services that are conceived by and for the benefit of a community and produced and/or managed more or less directly by members of that community (Lapniewska, 2017). Examples include from community orchards and urban parks to consumer cooperatives and network, or cultural centers managed by neighbourhood associations. The services and goods in question can be both tangible and intangible. For example, when a community of neighbors decides to reclaim a plot of land to create an urban garden, they are producing both an environmental and agricultural service, as well as social capital (trust among neighbors) and an object of aesthetic contemplation (i.e. a green space in the city) (Iaione, 2012). Likewise, urban communities can vary in their socio-demographic characteristics and needs, the objectives they propose and the dynamics of inter-

personal relations (Eizenberg, 2012); and the management models can vary according to the management and decision-making rules used (Huron, 2015).

At present, many of the urban commons experiences in the AMB and other cities are explained as a response to the lack of capacity of governments at different levels to provide public services and goods. This does not mean, however, that these governments have to be completely outside the common urban experiences. As work on community-based natural resource management and co-management has already advanced, the recognition and even material support of common initiatives by governments can play an important role in the long-term success of such initiatives (Ostrom, 1990; Cox et al. 2010; Olsson et al. 2004).

In Catalonia, commons notions and ideas have been discussed and incorporated into practice for over a decade, in both initiatives led by citizens, as in public policy. The *School of the Commons* (Escola dels Comuns de Catalunya), for example, is a horizontal platform for the production, exchange and dissemination of knowledge resulting from communal management of tangible resources such as squares, gardens, and intangible ones such as software, or digital information. Since 2011, they have organized bi-monthy training sessions around different topics such as commons and democracy and public space, commons and the market, natural commons, digital commons, models of commons governance, economical sustainability, etc. *Procomuns*, an action-research initiative that enhances community meetups in Barcelona dealing with commons collaborative economies and policies, technologies and the city for the people. Within the Network of Social and Solidarity Economy (XES), the mission of the *Commons Commission* is to share the knowledge, resources and ways of working of the digital commons tradition with the community of the solidarity economy. To this end, the Commission seeks to generate training and self-training spaces, promote the use of technology solutions based on free and open source software, promote free licenses and open standards, and support XES and its partners in the adoption of practices and values of the commons economy.

The above experiences have permeated local and supra-local discourses and practices, also thanks to knowledge exchange and political forums. Two examples are the network of municipalities for the Social and Solidarity Economy (Xarxa de Municipis per l'ESS, created in 2017), that has presented before the local governments a document with 15 measures to boost the Social and Solidarity Economy and an open guide relating these issues. A similar initiative focusing on digital commons is a set of 47 policy recommendations for the Digital Empowerment of Municipalities (Estratègies Municipals per l'Apoderament Digital), which counts with the support of the XES's Commons Commission.

1.1. Objectives

Corresponding to the research question, this study had 4 objectives:
- O1: To understand, conceptualize and characterize, from existing cartographies, the experiences of common-based activities in the Metropolitan Area of Barcelona
- O2: Identify and empirically systematize the territorial, socio-economic and institutional factors that facilitate the concentration and development of significant sets of common multi-sectoral co-production initiatives.
- O3: Analyze the impact of commons-based initiatives on the territory.
- O4: To produce public policy recommendations to generate alternative models of local development oriented towards the common good, through the promotion of commons-based initiatives.

2. Methodology

The research consisted on two levels of analysis. The first level included a large-n, quantitative analysis of citizen initiatives including a focus on the subset of commons initiatives. The second level included two case studies of the initiatives in two neighborhoods.

2.1 Large-n, quantitative mapping

The first phase of the project developed from the hypothesis that territories matter to the emergence and consolidation of commons initiatives practices. To explore this hypothesis, we developed a series of criteria to distinguish commons initiatives from other types of citizens initiatives, and then tested the distinction empirically in an integrated database and map of citizens initiatives.

2.1.1 Map integration

We started from a meta-analysis of existing cartographies of citizen initiatives. We identified 20 maps that could constitute a database for commons initiatives in the Metropolitan Area. The maps selected had been produced in the past decade by different organizations, from Social and Solidarity Economy sector to academic researchers, at different scales: individual municipalities, Barcelona, the AMB or for the whole of Catalonia. By analyzing repetitions and overlaps, we discarded 6 local maps of social and solidarity economy (*Mapa de entidades de economía social del Baix Llobregat*, *Mapa de economía social de Badalona*, etc.), which were included in wider maps (*Pam a Pam* and *Mapa de Innovació Social del AMB*). Finally, we built a database of initiatives drawing on public data, sometimes open access, from 14 sources.[1] Comparing the sources provided some initial interesting results. Contrary to expectations, we found less than 15% of overlapping between all the maps, meaning that our overall map was originally combining and covering sectors and initiatives that had remained blind spots in previous cartographic exercises. While our final database is still subject to reproducing the bias of the original mapping, we have been able to expand considerably our reach.

Key maps:
- ***P2P. Directori d'iniciatives de l'economia col·laborativa procomú a Catalunya*** (publication date 2016) (AMB: 1,000c.ca iniciatives)
- ***PAMAPAM*** (2013- to date) (Setem and XES) (AMB: 400 c.ca)
- ***Mapa d´innovació social a l´Àrea Metropolitana de Barcelona*** (IGOP and IERMB) (2016- to date) (AMB: 632)
- ***COPHAB*** (IGOP) (2017-18) (AMB: 25 c.ca)

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[1] *Mapa PAM a PAM*; *Mapa Innvovació i Metròpoli*; *Directorio P2P*; *Projecto CopHab* (*Coproducción de Vivienda*); Bianchi, I (2018). In, against, beyond and through the State. Limits and possibilities of Urban Commons in Barcelona. Tesis Doctoral. UAB. Barcelona; Cámara, C. 2018. Comunes urbanos: Lecciones desde la Barcelona de principios del siglo XXI. Una propuesta de caracterización desde la praxis. Tesis doctoral. UOC. Barcelona; Domene E, García M, Cattaneo C, Coll F (2017). L'agricultura urbana i periurbana en el marc d'un sistema agroalimentari sostenible. Institut de Ciència i Tecnologia Ambiental i AMB; Espelt, R. 2018. Cooperatives de consum agroecològic de plataforma. Tesis doctoral. UOC. Barcelona;https://www.instamaps.cat/instavisor/23379034/e0a7cc08c5c5a2544a5eef2639f45eae/Horts_Sant_Cugat.html?3D=false#13/41.4653/2.0713; Personal communication with a civil servant from Sant Feliu de Llobregat; own data, Dra. Laura Calvet Mir; own data, Marina Pera Ros; *Red de Ateneos Cooperativos de Cataluña*; *Red de Casals y Ateneos de los Países Catalanes.*

2.1.2 Commons criteria

While all initiatives mapped could be considered examples of social or economic activities emerging from citizen initiatives and aiming at meeting needs that were not met by the state or by the market, we were hesitant to classify them all as commons**.**

To define conceptual the boundaries of urban commons, we carried a literature review, run an expert workshop, and carried a pilot coding of initiatives. The literature review was not systematic and targeted works on urban commons from different academic schools, including most prominently, the institutional economics school (Dellenbaugh et al. 2015, Rogge and Theesfeld 2018),), the environmental justice school (Ozkainak et al. 2015, Calvet-Mir and March 2019), and the Marxist school (Harvey, 2012; De Angelis, 2017; Federici, 2018).

The different schools understand the commons as an organizational form through which a group of citizens self-organize to manage a material or immaterial resource. The main difference between the different school relies in their object of research. New-institutionalist studies aim to understand whether and how citizens are able to design and change the rules that promote cooperation and collective management of the shared resources (i.e., commons). The environmental justice school focuses on the political nature of commons initiatives as solutions to ecological distribution conflicts and their entanglements with social movements. The Marxist school is interested in understanding how the commons can develop a path of emancipation to capitalism by building an alternative mode of production to the state and the market's one.

The literature review served as a basis to prepare and introduce the expert workshop. The workshop included experts in social innovation, urban commons and mapping. Some of them had been involved in the elaboration of the maps that we used as the basis of our integration effort. The workshop consisted on a plenary with presentations of the proposal and a conceptual framing, a small-group work activity, and a final discussion plenary.

Finally, we run a pilot coding of citizens initiatives included in Pam a Pam database, the largest of the databases included in our study. This database characterizes the initiatives based on a series of categories, some of which overlapped with our understanding of commons and the definitions found in the literature and shared in the expert workshop. Overall, we selected 4 commons initiatives criteria:

1. **Prosumer**. Probably the most basic criterion of commons initiatives is the blurring of the distinction between producer and consumer. In prosumer initiatives, the good or service is produced by the users themselves, at least in some phase of the productive process (which includes its governance). Although the use of the good or service may be open and, therefore, there may be other users beyond those who are part of the initiative itself; as a general criterion we understand that those who produce the good or service are also those who use it and, as far as possible, those who use it may be involved in its production.

2. **Internal democracy**. Key in the organization of commons initiatives is the possibility that citizens participate in decision making processes of the initiative. We distinguish three degrees of internal democracy:
   a. **Without Internal Democracy**. There are clear protocols known by all the people who are part of the initiative about the decision-making processes and the consultative and binding processes have been differentiated.
   b. **Basic**. All the people in the initiative have periodic spaces of participation where decisions are made and sufficient information is offered to them to guarantee quality and equality in the decision making and evaluation of the work carried out.

9

c. **Advanced**. The active participation of members is encouraged and/or methodologies are used to dynamize and facilitate meetings and joint work spaces.

3. **Transformation aim**: We understand that commons have the aspiration to produce a kind of long-term socio-environmental change through the promotion of alternative, i.e., non-commodity based, models of development. We divided this aim into two levels, i.e., internal and external, and also into two dimensions, social and environmental.
   a. **Internal**. Incorporation of socially and environmentally transformative practices in the productive process and/or the management dynamics of the initiative itself. Without being exclusive we distinguish between internal transformations of character:
      i. **Social**. The initiative guarantees decent working conditions and redistribution of income (wage ratio less than 5) and/or incorporates a feminist perspective (promoting content and/or measures with a gender perspective).
      ii. **Environmental**. The initiative incorporates ecological criteria in the production process and/or in its management (purchases and suppliers with ecological criteria, use of low impact materials, waste reduction, energy efficiency, etc.
   b. **External**. The aim is to generate socio-environmental changes of a systemic nature based on alternative models of development. Again, without being exclusive, we distinguish between external transformations of character:
      i. **Social**. The will of the initiative is to promote social transformation, they make it explicit (through their statutes, manifestos and internal or public documents) and/or they act proactively to respond to social needs and/or they work by doing political advocacy.
      ii. **Environmental**. The initiative's aim is to promote environmental transformation. They make this explicit (through their statutes, manifestos and internal or public documents) and/or act proactively to respond to environmental needs and/or work in political advocacy.

4. **Nature of alternative.** A key definition of commons which emerges from the literature as much as from the initiatives themselves, and the ways in which they self-represented, is their nature or aspiration as alternatives to existing forms of provision of goods and services, and by extension of local development.
   a. **Alternatives to the welfare state**: The initiative proposes an alternative to goods or services that are produced within the framework of the Welfare State in one of its four pillars: education / health / social services / dependence.
   b. **Alternatives to the Market**: The initiative proposes an alternative to the production of goods or services that are not usually and in our context produced by the State, but by the Market.
   c. **Alternatives to the State and the Market**: The initiative proposes an alternative to goods or services that are not part of the four pillars of the Welfare State and that in our context can be produced by both the State and the Market.

When analyzing our database according to 4 above criteria, we had to adjust our initial scope. Initially, we intended to include as commons only those that fulfilled all criteria, i.e., were prosumer, evidenced advanced internal democracy, had some degree of internal and external social and/or environmental transformation, were clear alternatives to the State and the Market. Such a strict application of the criteria above resulted in the classification of fewer than 200 initiatives as commons. More importantly, the team realized that associating the commons

to high internal democracy, external socio-environmental transformation and State/Market alternatives was a strong assumption and should rather be treated as a hypothesis. We therefore decided to use the prosumer criteria (common denominator to all theoretical traditions) as the main variable to classify the initiatives as commons and then use the rest of the variables to further explore variation across prosumer and non-prosumer groups of initiatives.

2.1.3 Defining 'coproduction'

In addition to the criteria and categorisation of citizens´ initiatives existing there was the question of coproduction, a key term in our theoretical framework. Thus, to fit the idea of co'-production, initiatives had to fulfill three criteria: (1) the initiatives had to be *productive* (have a tangible outcome, be it a good, a service or knowledge); (2) they had to involve the participation of users in the production processes (either as peer-producer or *prosumers*); (3) and they had to have some form of *collaboration with public authorities* at any level.

1. **Production of goods or services**. The initiative mostly concerns the production of some kind of good or service. We distinguish between:
   1. **Good**. What is produced is a material good
   2. **Service**. What is offered is a service (not material)
   3. Initiatives that produce a material good and also offer a service
   4. **Knowledge**. Initiatives that produce/offer knowledge (information, culture, historical memory). These are initiatives in which what is produced can be conceived both as an immaterial good (resource) and as a service.
   5. **No**. Those that do not produce any good, service or knowledge are excluded from the list. For example, an assembly of unemployed people that only states on its web page that it has a claiming purpose without expressing that it provides advisory services.
2. **Relationship with the public administration**. The initiatives provide information that they collaborate with the public administration, i.e., local and supra-local, or both.

In an attempt to further characterize the initiatives, we also included a number of other variables in the database:

1. **Metropolitan scale**. We were interested in initiatives that have a local or metropolitan character. We excluded those that have no link with the territory where they are located (for example, those that are exclusively digital) and those that do not enjoy local autonomy (franchises or sections of higher organizations). Digital ventures, franchise or chapters were included only if the initiative had a strong local component or a co-production with local actors. For example, a digital newspaper like Marea is included because it has local sections that produce localized content.
2. **Year**. Year that the initiative started.
3. **Legal form**. The legal form of the organization behind the initiative in case there is one.
4. **Second level**. Whether the initiative is a second level organization (i.e., an association of initiatives/organizations).

After creating a master database of initiatives, each initiative was analyzed through a virtual ethnographic method based on a revision of the webpages of the initiatives. The coding was iterative. All six researchers of the team first coded a pilot batch of initiatives each and resolved questions about the coding categories in a series of 5 collaborative coding sessions. Once the

team reached common understanding of the categories, each member coded a batch of around 50 initiatives over a three- month period.

2.2 Cluster Analysis

In an attempt to synthesize and explore patterns in the data collected we run a series of cluster analyses with the SPSS software. Specifically, we carried a TwoSterps Cluster Analysis with a Log-likelihood distance measure, with a Shwarz Bayesian conglomeration (BIC) criterion. We first run an analysis including all the commons and coproduction variables in the database and proceeded step-wise until finding a set of clusters that were sufficiently discriminating of initiatives and also made qualitative sense based on our tacit knowledge of some of the initiatives.

2.3 Case studies

After creating the new database and map of citizen initiatives and running some preliminary analysis (e.g., concentration of initiatives per neighborhood) we proceeded with the second stage of the project, i.e. the two case studies.

We used neighborhoods as the sampling unit to select the cases. We selected neighborhoods with high concentration of commons (i.e., prosumer) initiatives in relation to the population and relatively similar socio-demographic (i.e., census) features.

To collect the data, we run semi-structured interviews with representatives of the commons initiatives in each of the neighborhoods. As pointed in the introduction, we collected data to understand the emergence, proliferation, and impact of the initiatives. Additionally, we applied a social network survey to understand their relationships. The interviews and survey were applied in person and set by appointment. All the interviewees were shared the questions in advance. All the interviews were transcribed and coded inductively following the steps of grounded theory (Charmaz, 2006)). Specifically, we developed categories to understand the impact of the initiatives on the territory from an economic, social and environmental perspectives; and to unveil experiences of coproduction of the initiatives with public authorities.

We then used the survey data to build the network of each of the initiatives and integrate them into one single network. A social network is a social structure made up of individuals (or organizations) called "nodes", which are tied (connected) by one or more specific types of interdependency, such as common interest, financial exchange, or relationships of beliefs, knowledge or prestige. The analysis of network structures can reveal patterns of connectivity among actors and their impact on outcomes of the impact of initiatives at the territorial level. To study patterns of connectivity, we calculated network-level measures of the level of cohesion/fragmentation of the network and the existence of eventual leaders (Borgatti et al. 2010). The measures included: (1) size, or number of actors in the network; (2) number of components, or the number of clusters of actors within the broader network; (3) density, or the number of links in the network, expressed as a proportion (from 0 to 1) of the maximum possible number of links; and (4) degree network centralization index, or the tendency for a few actors in the network to be the receptors of many links (expressed in percentage). We also calculated two individual-level centrality measures, both widely acknowledged by the literature as reliable indicators of both prestige (degree; Wasserman and Faust 1994) and brokering capabilities (betweenness; Burt 2003). We measured Degree as a count of the number of ties to other actors in the network. It is a measure that represents more popular/well-connected initiatives in the network. We measured Betweenness, as the number of times an actor rests on a short path connecting two others who are themselves disconnected. This indicates which initiatives brokered across different initiatives and disconnected segments of the network.

2.4 Participatory workshops

In the course of the project we programmed and designed two workshop-based to present the project and facilitate feedback from researchers, policy-makers and participants in the commons, social and solidarity economy sectors in the Metropolitan Area of Barcelona. The first workshop (December 2018) has been already mentioned. The second, more substantive workshop took place a year later, in October 2019. This second workshop aimed at sharing and validating the main findings of the study, and co-developing with stakeholders a series of policy recommendations. The workshop was titled "Coproducció procomú i desenvolupament territorial a l'Àrea Metropolitana de Barcelona" and took place in the community-managed civic centre of La Lleialtat Sansenca, in Barcelona.

We sent email invitations to all the commons initiatives that had participated in the two case studies, as well as technical personnel of municipalities of the AMB, working on issues of local economic development.[2] The organizations finally attending included participants from the *Ateneu Hospitalet*, the *Universitat de Vic*, the *Ajuntament de Sant Cugat*, the *Xes de Sant Cugat*, the *Acció Comunitaria Ajuntament*, the *Ecola del IGOP*, the *FemProcomuns - Ateneu Cooperatiu de Barcelona*, the *Forum Mondial del es Economies Transformadores*, and the *Casal de Barri del Besòs*.

The workshop included a presentation of results and a Q&A session, followed by two working sessions. We facilitated the two working sessions according to the 'World Café" method. We opened the sessions with the question: Which public policies shall be promoted to foster commons initiatives given the need to pay attention to contextual specificities? Responses, concrete examples and reflections were then debated collectively and edited in an online shared pad. Subsequently, we analyzed and synthesized thematically the notes into recommendations and shared them for further feedback with the attendants.

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[2] Over 100 email invites.

3 Results: commons economic activities in the AMB

The first step undertaken to study the relationship between commons initiatives and economic development in the Barcelona Metropolitan Area required understanding what kind of existing activities and practices could be considered commons. The key step of the process was the creation and qualitative interpretation of a database of cases, built by expanding on a number of different existing databases and studies. The distinctive expertise of each of the team members on different forms of commons guaranteed a theoretically and methodological informed assessment of the cases collected in the database, as well be explored in the following pages.

Firstly, we offer an overview of the database, its initiatives and territorial distribution overall. Secondly, we examine the sectors of economic activities and their distribution. Thirdly, we examine significant variables, both in terms of total and prosumer initiatives. Fourthly, we offer a cluster analysis. And finally, we present the results of the case studies undertaken.

3.1 The database

The first outcome of the project was the creation of a database of 1160 initiatives located across the municipalities of the Barcelona Metropolitan Area. As discussed in the Methodology, the process of composing the database included detailed categorising different characteristics of the initiatives. Different categorisations enable to conduct a first stage of descriptive statistical analysis, as will be explored in the course of this section of the report. These characteristics are fundamental to assess the degree to which the initiatives under exam could be considered 'commons', as well as to examine their degree of diversity in terms of economic activities, aims and aspirations, legal status, forms of 'prosumption' (beyond production and consumption) and forms of democratic decision-making.

Geographical information was collected for the vast majority of initiatives, in order to enable both descriptive and analytical GIS analysis. In the second phase of the study all initiatives – except 6 – have been geolocalised using the Complament MMQGIS (Geocode Google Maps), so the total georeferenced sample is 1154. Of these, 59 did not have a full street address and were situated in an approximate location in the centre of the city (see annex 1 for the exact projects and locations).

3.1.1 Overall territorial distribution

It is useful to begin out analysis with a descriptive spatial overview of the database. As predictable, initiatives concentrated in densely populated urban areas, particularly within the boundaries of the Barcelona City, with over 800 initiatives identified. We also identified initiatives in 33 of the remaining 35 municipalities of the AMB; the only two for which no data was available were Sant Climent de Llobregat and Santa Coloma de Cervelló (Table 1).

| Municipality	Total number of initiatives
Barcelona	848
L'Hospitalet de Llobregat	36
Sant Cugat del Vallès	32
Santa Coloma de Gramenet	27
Badalona	25
El Prat de Llobregat	19
Cerdanyola del Vallès	18
Cornellà de Llobregat	13
Molins de Rei	13
Barberà del Vallès	12
Sant Boi de Llobregat	12
Montcada i Reixac	11
Sant Feliu de Llobregat	8
Viladecans	8
Badia del Vallès	7
Castelldefels	7
Ripollet	7
Sant Adrià de Besòs	7
Begues	6
Sant Joan Despí	6
Esplugues de Llobregat	5
Gavà	5
Montgat	4
Sant Vicenç dels Horts	4
Castellbisbal	3
Sant Just Desvern	3
Torrelles de Llobregat	3
Cervelló	2
el Papiol	2
Sant Andreu de la Barca	2
Tiana	2
Corbera de Llobregat	1
la Palma de Cervelló	1
Pallejà	1
Total general	1160

Table 1. Municipalities and number of initiatives.

After Barcelona, the municipalities with the highest total number of initiatives (>10) were: L'Hospitalet de Llobregat, Sant Cugat del Vallès, Santa Coloma de Gramenet,

Badalona, El Prat de Llobregat, Cerdanyola del Vallès, Cornellà de Llobregat, Molins de Rei, Barberà del Vallès, Sant Boi de Llobregat and Montcada i Reixac. The list combines both municipalities with high socio-economic status and above median income, with others such as Barcelona, Badalona, l'Hospitalet de Llobregat, Santa Coloma de Gramenet, which have historically been characterized (at least since 1991) by the neighborhoods with the highest index of urban vulnerability (Anton-Alonso et al., 2017: 38). They correspond to what has been designated as three hotspots: the Barcelona inner city (casc antic) and the 'axes' of the Besòs and of the Llobregat.

The significance of the neighbourhoods scales in literature that studies both vulnerabilities and responses to it, led to the decision to choose the latter as our preferred scale of analysis, on which we based our cartographic analysis of distribution (213 neighbourhoods), following the territorial division devised by the AMB. The map below (Map 1) shows the distribution of initiatives in the Barcelona Metropolitan Area, showing neighbourhood boundaries.[3]
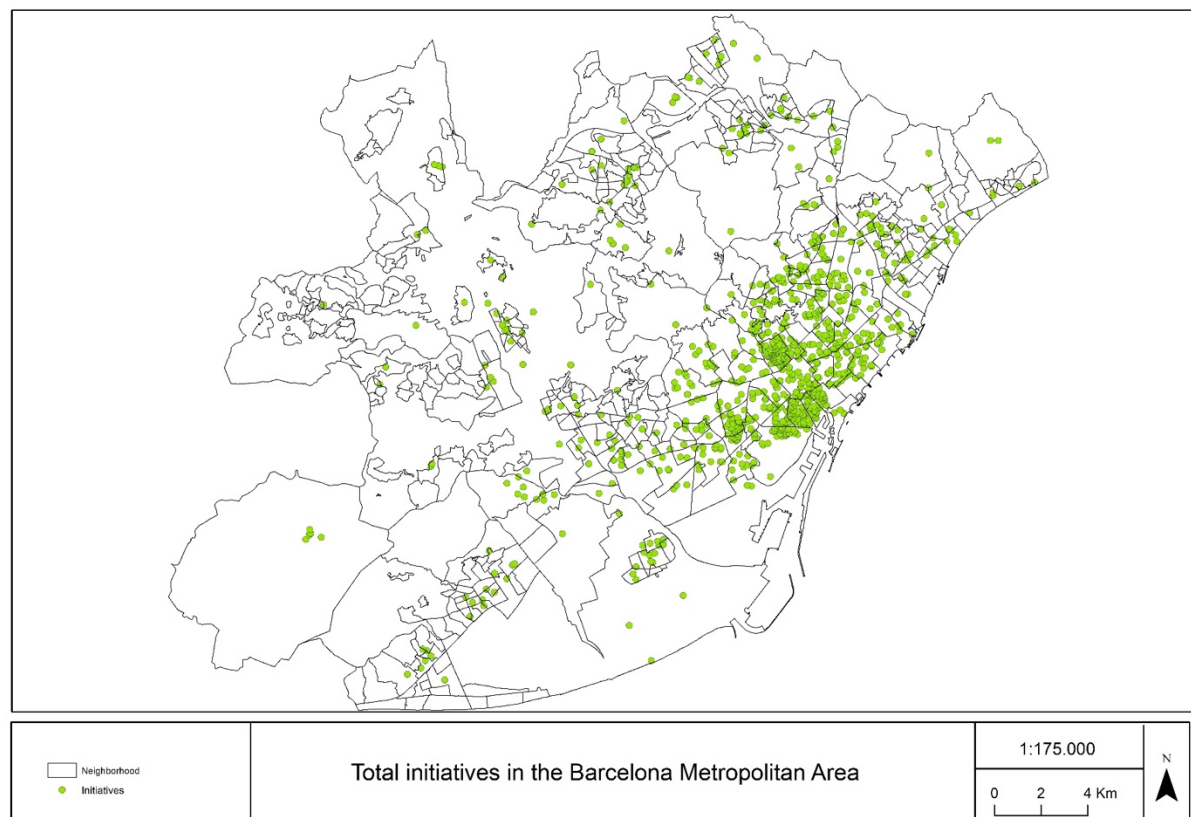
Map 1. Total initiatives in the Barcelona Metropolitan Area.

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[3] Analysis through GIS statistical methods was undertaken in the preliminary stages to identify correlations between variables of the 2011 census data and the concentration of initiatives in specific census tracts. The variables analysed were total number of residents, gender, and the total number of population over 16 years old employment, unemployment and inactive. The analysis did not yield any significant results.

If we look at concentration of initiatives in relation to neighbourhood boundaries (Map 2) we see that the neighbourhoods with the highest concentration (>11) are mostly located within the boundaries of Barcelona. [4]
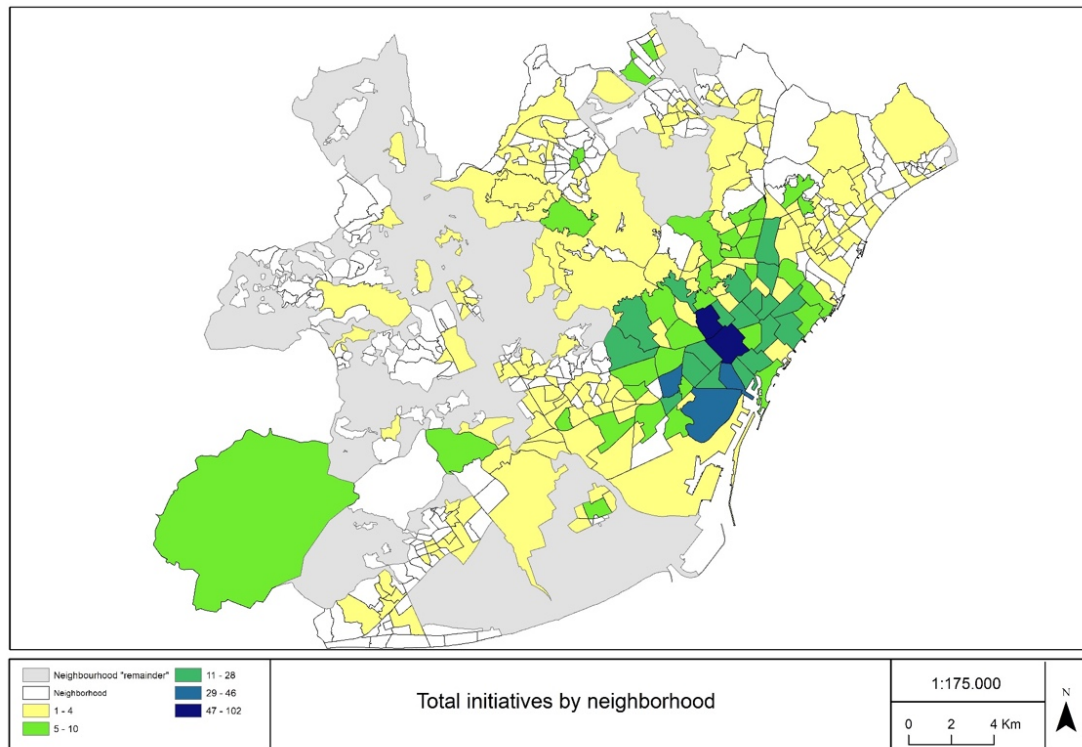
The highest concentration of initiatives (>70) in the inner Barcelona neighbourhoods of la Vila de Gràcia and la Dreta de l'Eixample. The spatial distribution identified in our study shows similar spatial patterns to the analysis of practices of social innovation mapped by Cruz et al (2017), which noted that initiatives across Catalonia "do not concentrate neither in the wealthiest nor in the poorest areas, but in middle-income areas with significant levels of social mix and with a strong tradition of social mobilisation" (2017: 236). The data, however, could also potentially corresponding to the highest concentration of official registration of associations and social and solidarity economies companies, rather than necessarily the primary location of the economic activities. The following highest concentration are also in high density neighbourhoods: el Raval; el Poble Sec, and Sants.

In the middle range, between 11 and 26 initiatives we find: Sant Pere, Santa Caterina i la Ribera; Sant Andreu; el Barri Gòtic; el Poblenou; la Sagrada Família; el Parc i la Llacuna del Poblenou; el Guinardó; el Camp d'en Grassot i Gràcia Nova; el Clot; la Bordeta; Sant Antoni; Provençals del Poblenou; Vallcarca i els Penitents; Pedralbes; Sarrià; la Sagrera; l'Antiga Esquerra de l'Eixample; el Camp de l'Arpa del Clot, and la Nova Esquerra de l'Eixample.

In the lower range, between 5 and 10 initiatives, we encounter a mix between Barcelona neighbourhoods such as La Marina del Port, Hostafrancs, les Corts and La Barceloneta, and neighbourhoods in other municipalities, such as the Centre de Santa Coloma de Gramenet, Santa Eulalia (in L'Hospitalet de LLobregat) and Begues. The remaining neighbourhoods have low presence, between 1 and 4 initiatives. Many of the neighbourhoods of this lower range have been identified as characterised by the highest index of vulnerability within the Barcelona Metropolitan Area (Anton-Alonso 2017: 39-40).[5]

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[4] They grey area corresponds to green spaces categorised by the AMB as a 'reminder' (for an explanation see Annex 2).

[5] The full list includes: Peguera (Barcelona), Marina del Prat Vermell (Barcelona), el Raval (Barcelona), Sant Roc (Badalona), la Mina (Sant Adrià de Besòs), el Remei (Badalona), la Trinitat Nova (Barcelona), el Raval (Santa Coloma de Gramenet), la Pubilla Cases (l'Hospitalet de Llobregat), la Barceloneta (Barcelona), Baró de Viver (Barcelona), la Salut (Badalona), Pomar (Badalona).

Map 2. Concentration of initiatives in the Barcelona Metropolitan Area.

3.1.2   Collaborative economy beyond the binary of production-consumption

The total number presented above and in the course of this chapter includes initiative that present at least one element of the several that define commons initiatives. Not all initiatives could therefore be categorised as commons, as will be explored in the following pages.

In making the distinction between commons and non-commons, the characteristic of 'prosumption' was crucial. Prosumption brings a reconceptualization of the binary between production and consumption which is key to understandings of urban and rural commons as simultaneously pertaining to the realm of production and of consumption through use, and as typical to post-industrial societies. 'Prosumption' has been argued to belong to a continuum between the two and is used a theoretical and methodological tool to highlight the implications of collaborative practices of peer-to-peer production and use onto existing categorisation (Ritzer & Jurgenson, 2010). While both production and consumption do dot existing in a vacuum and "always interpenetrate" (Ritzer, 2015), distinguishing between 'prosumer' and non-prosumer activities was particularly important for us to distinguish between service provision (to others) and self-organised, transformative practices. For example, we categorised as prosumer a formal or informal educational space were children and parents are involved in the design of curriculum and the governance of the space. On the other hand, we categorised as non-prosumer: a catering service or carpentry workshop where a cooperative organisations produces goods solely for sale to others who are not involved in any of the phases of production or decision-making around production.

For each category below, we have compared and contrasted the total frequency with the frequency for those categorised as 'prosumer', which is the key variable that identifies them as commons. As visible below (graph 1), we identified a near balance between prosumer and non-prosumer initiatives, with a slightly higher, 41%, manifesting prosumer characteristics. For 20% of the initiatives we did not have sufficient data available.
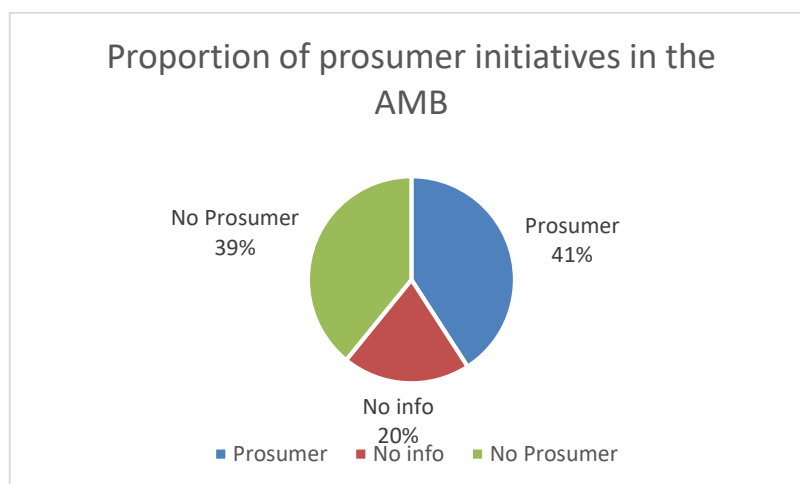

Graph 1. Proportion of prosumer to non-prosumer initiatives in the Barcelona Metropolitan Area (AMB).

Of the 80% for which we had sufficient data (N=928), we found that there was an almost even spread between prosumer and non prosumer initiatives, with a slightly higher percentage of prosumer (51%).
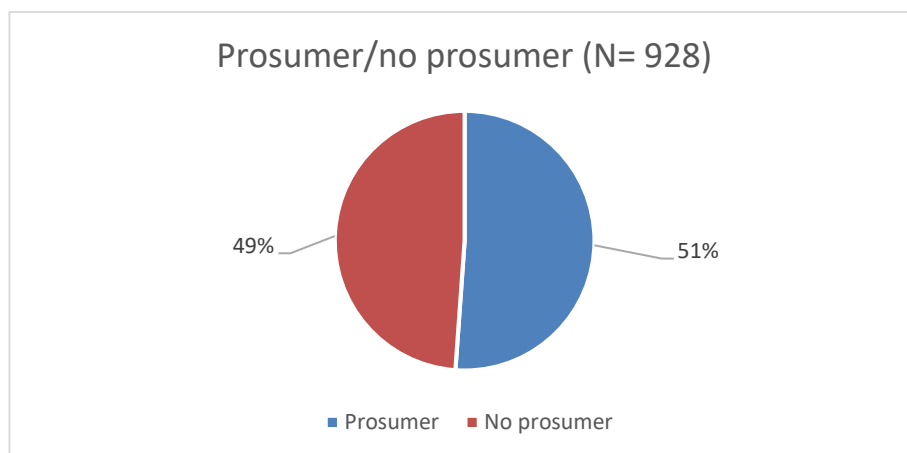
Graph 2. Prosumer and non-prosumer.

Despite this nearly even distribution in terms of the entire sample, the spatial distribution of initiatives is highly uneven, as visible in the map below (Map 3).
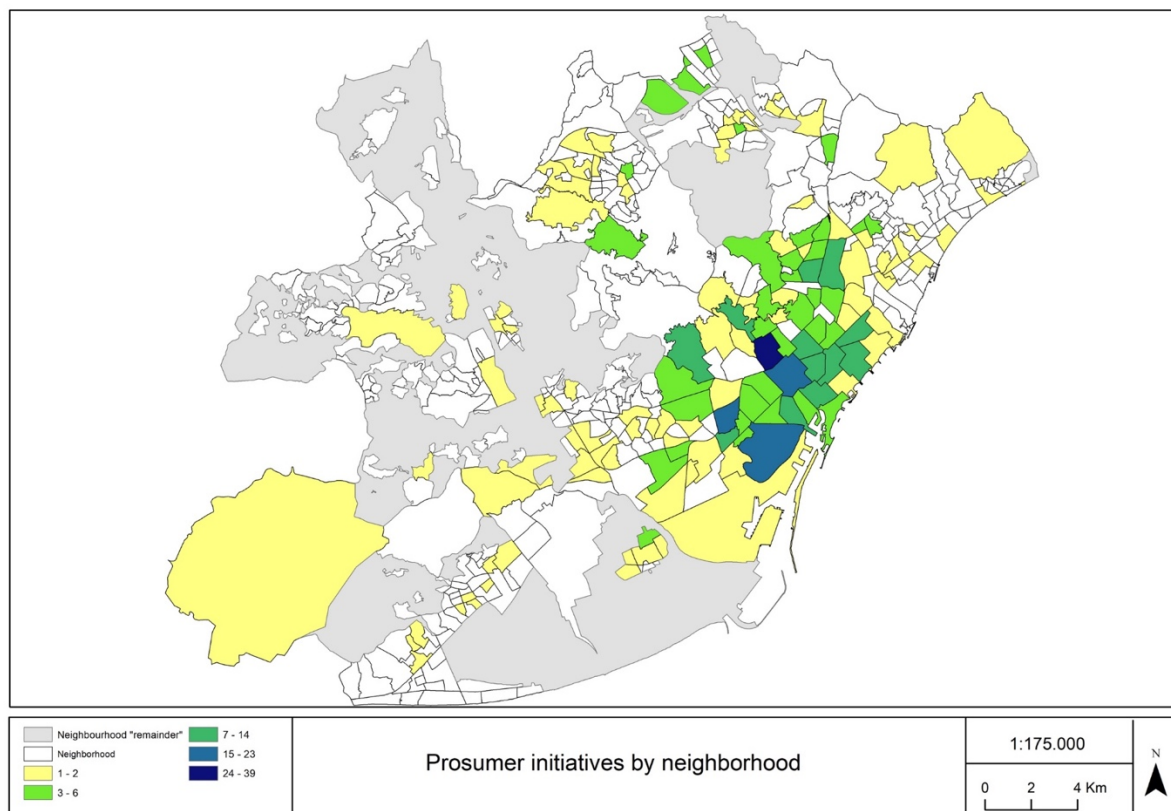
Map 3. Concentration of prosumer initiatives by neighbourhood.

We found that over 40% of all 'prosumer' inititiatives were located within the City of Barcelona. Indeed, there was a degree of correspondence between the neighbourhood with the highest concentration of initiatives, and those with the highest concentration of prosumer initiatives, such as La Vila de Gracia. But that was not always the case: important clusters were found in the municipalities of L'Hospitalet de Llobregat, Sant Cugat del Valles, Cerdanyola del Valles, el Prat de Llobregat, Badalona and Santa Coloma de Gramenet.

3.1.3 Typologies of initiatives

One important dimension when approaching the wider database was defining what type of productive activities these initiatives could be categorised as. As discussed in the Methodology, we distinguished 4 types of initiatives: those whose primary objective was the production of goods; those which offered services; those whose primary objective was the production of new knowledge, and finally, those that combined a service provision/organisation with the provision of actual tangible goods (see Methodology).

Of the total number of initiatives, the vast majority (73%) could be described under the category of 'services'. This is followed by 'goods and services' with 12%, goods, at 7% and knowledge, at 4%. For an approximate 4% of the initiative the data was not available (Graph 3).
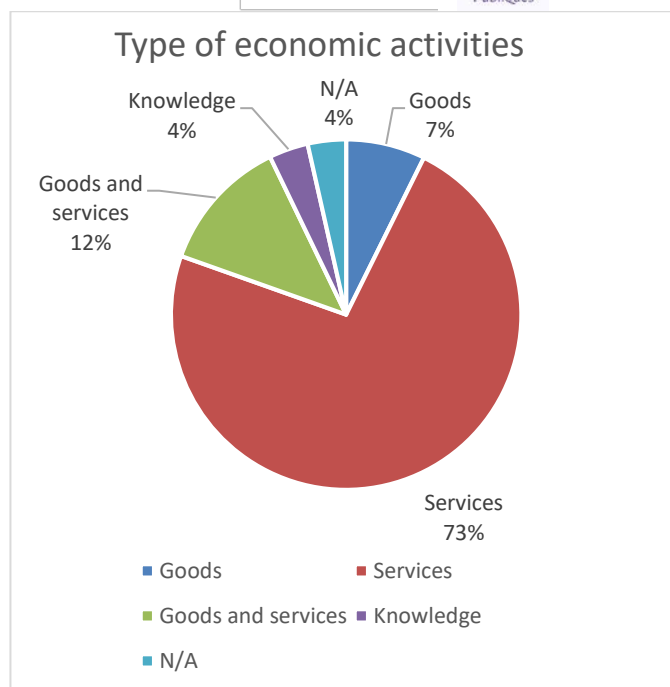
Graph 3. Initiatives by type of economic activities.

The distribution of economic activities is not surprising. On the overall sample, the high proportions of initiatives within the broad 'Services' and 'Service and goods' categories (85% of the sample) is fundamentally in line with AMB statistical indicators showing that the service sector is the most important occupation in the area: 85,6 % services; 9,8 % industry; 4,5 % construction and 0,1% agriculture (AMB and IERMB 2017, *La metròpoli en 100 indicadors. L'AMB en Xifres 2017*). When we analyze only the distribution of prosumer (commons) initiatives by type of production, we observe that a slight increase in the 'Goods and services' category, from 12 to 15%, and in knowledge, 4% to 5%, while a marked decrease in initiatives whose primary activity is the production of goods (Graph 4).
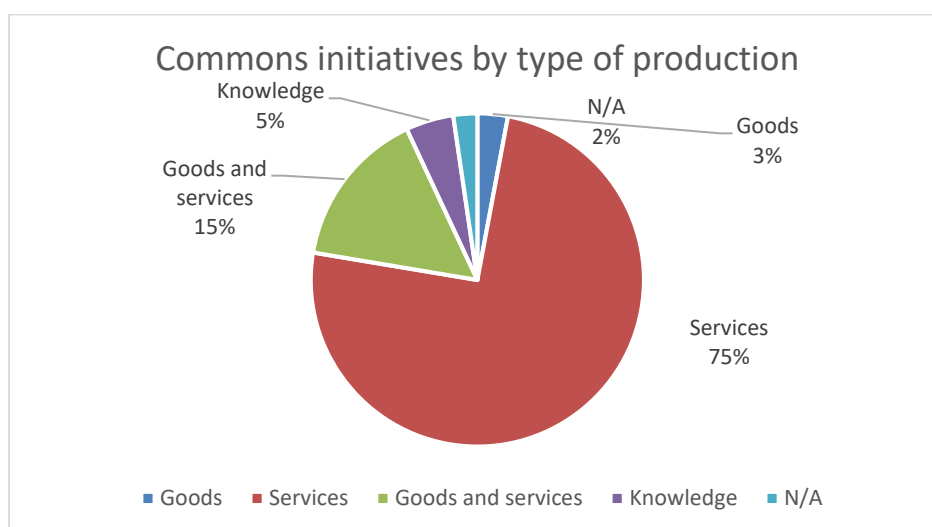
Graph 4. Commons initiatives by type of production.

	Total initiatives	Prosumer	Prosumer as % of total
Goods	85	14	16,47%
Services	848	354	41,74%
Goods and services	144	73	50,69%
Knowledge	42	22	52,38%
N/A	41	11	26,82%
Total	1160	474	

Table 2. Prosumer and total number of initiatives by type of productive activities.

Finally, comparing the percentage of prosumer on total number of initiatives (table 2), we observe that commons initiatives make out over half of all 'knowledge' initiatives and half of all 'Goods and services', 42% of all 'Services' and only 17% of initiatives that are categorized as producing, primarily, 'goods'.

3.1.4 Initiatives by productive sector

When examining the typologies of productive economic activities realized by commons initiatives, it was necessary to analyze the ways in which activities were catagorized in the database collected. In this process, we identified similarities but also important differences, which led to a substantial rethinking of how some of those initiatives have been described and coded (table 3).

| Categories in Pamapam	Categories in Mapa Innovació i Metropoli	Categories in Proyecto Procomún
Nutrition	Housing	Agroecology, energy and environment
Communication	Environment, territory and energy	Consulting and ethical financing
Education and Research	Economy and consumption	Health and mutual support
Financing and social currencies	Employment	Housing
Logistic	Education, culture and leisure	Culture and leisure
Hotel and catering	Care, health and autonomy	Education and knowledge
Supply		Technology and logistics
Consultancy		
Culture and leisure		
Spaces and networks		
Housing and environmental management		
Production and/or retail		
Health and care		
Technology and electronics		
Textile		

Table 3. Comparison of mapping categories.

After careful assessment of different options, we therefore decided to re-categorised our sample and simplify the number of categories 7 macro categories:

1. Agroecology, energy and environment (ex. Agroecological networks, food collectives, cooperative energy providers);
2. Consulting and ethical financing;
3. Culture and leisure (cooperative cinemas, places to eat, theatres);
4. Education and knowledge (schools managed by workers and parents, networks of researchers);
5. Health and mutual support (ex. Local assemblies, care networks);
6. Technology and logistics (ex. Self-organised wifi networks);
7. Housing (e.g.: traditional cooperatives and cooperatives 'en cessiò d'ús').

The recategorisation was a long process and not a simple re-assignation of labels. The same initiative could be categorized under Pam a Pam as 'food' (alimentación), due to

the productive sector in which it operated, but as 'social finance initative' (finanzas sociales) in the map of Innovaciò i Metropoli, due to the kind of practices it put into practice. We decided that the seven categories above were sufficiently specific to capture different sectors but also offered a more synthetic overview of practices.

In terms of their total numbers, the two categories with the highest number of initiatives are 'Agroecology, energy and environment' and 'Culture and leisure' (Graph 5).
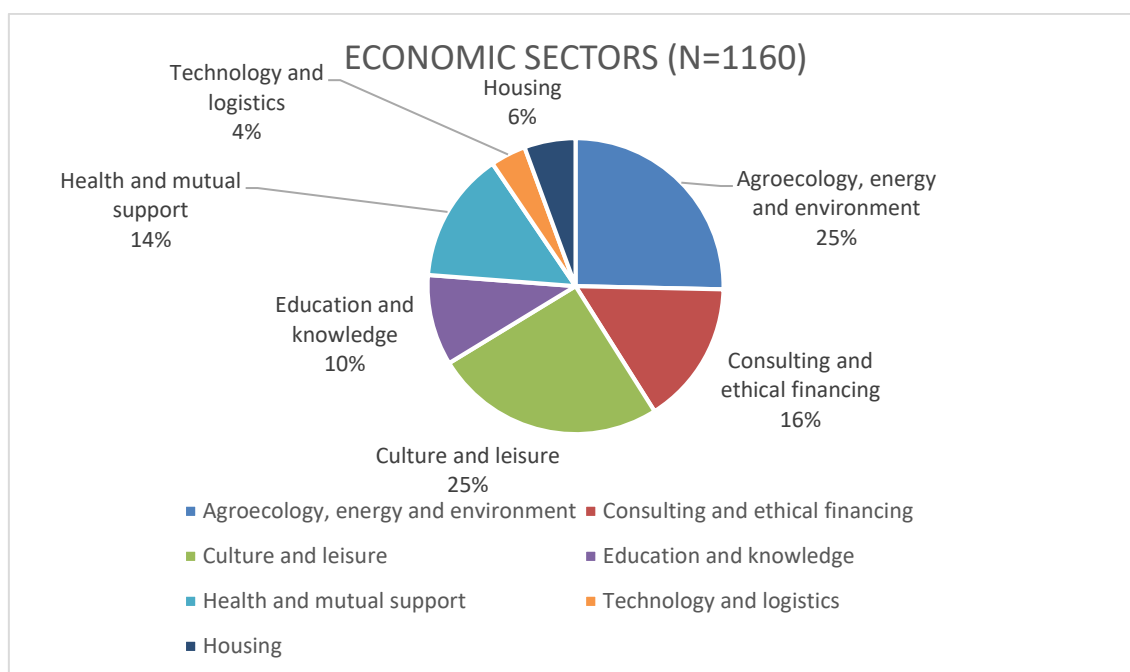

Graph 5. Distribution of economic sectors in our database.

As expected, the highest concentration of initiatives is located within the boundaries of Barcelona in line with the concentration of all economic activities (Generalitat de Catalunya, Observatori d'Empresa i Ocupació, 2019). Presenting an analytical comparison of our sample in light of existing statistics about economic productivity in the Barcelona Metropolitan Area is not straightforward. On the one hand, the number of total initiatives collected in the database may be too limited in comparison to existing statistical data. On the other, the macro categories that were designed from the database itself are not neatly comparable to those devised by official statistical sources, such as by the Catalan Observatory of Business and Employment data. It is however possible to draw some correlations in some of the sectors (Maps 4-10).

The spatial concentration of *Agroecology, energy and environment* (Map 4), for instance, shows similar spatial patterns to the data elaborated by the Laboratori Metropolità d'Ecologia i Territori de Barcelona (LET). Specifically, this relates to the high concentration of agricultural production in the municipalities of Gavà, Viladecans, El Prat de Llobregat, Sant Boi de Llobregat, Torrelles de Llobregat, Santa Coloma de Cervelló, Sant Feliu de Llobregat, Sant Joan Despí and Castellbisbal (IERMB, 2018). Most of the inner Barcelona initiatives represented by the maps relate to small-scale urban

agricultural projects and agroecological consumers groups (See Domene et al. 2017). Some of them have come as a direct result of local policies to develop community gardens, such as to lease on a temporary basis vacant plots of land for gardening (Pla Buits) (Calvet-Mir and March 2019).

Within the boundaries of the city of Barcelona, inner-city neighbourhoods show a predictable tendency of concentration, with some interesting observable differences. The concentration of initiatives dedicated to *Education and Knowledge* (Map. 7) can be found in the neighbourhoods of la Dreta de l'Eixample, Pedralbes, la Vila de Gràcia, but also in El Raval, followed by Poble Sec and El Parc i la Llacuna del Poblenou. For *Culture and Leisure* (Map. 6), however, initiatives are present in similar concentration to those of inner city areas in the (more) peripheral neighbourhoods of Sant Andreu, el Poble Nou and la Marina del Port. In the sector of *Technology and logistics* (Map 9) the highest concentration is to be found in La Sagrera, followed by Sants neighbourhood. In the category of *Housing*, for instance, a high concentration of initiatives is situated in the district of Sants and Montjuïc, more specifically in the neighbourhood of La Bordeta, Sants and Hostafrancs, thanks to the presence of a number of high profile citizen platforms, support organisations and cooperative and self-managed housing projects, such as La Borda; a significant number is also to be found in la Dreta de l'Eixample and in Vallcarca i els Penitents.
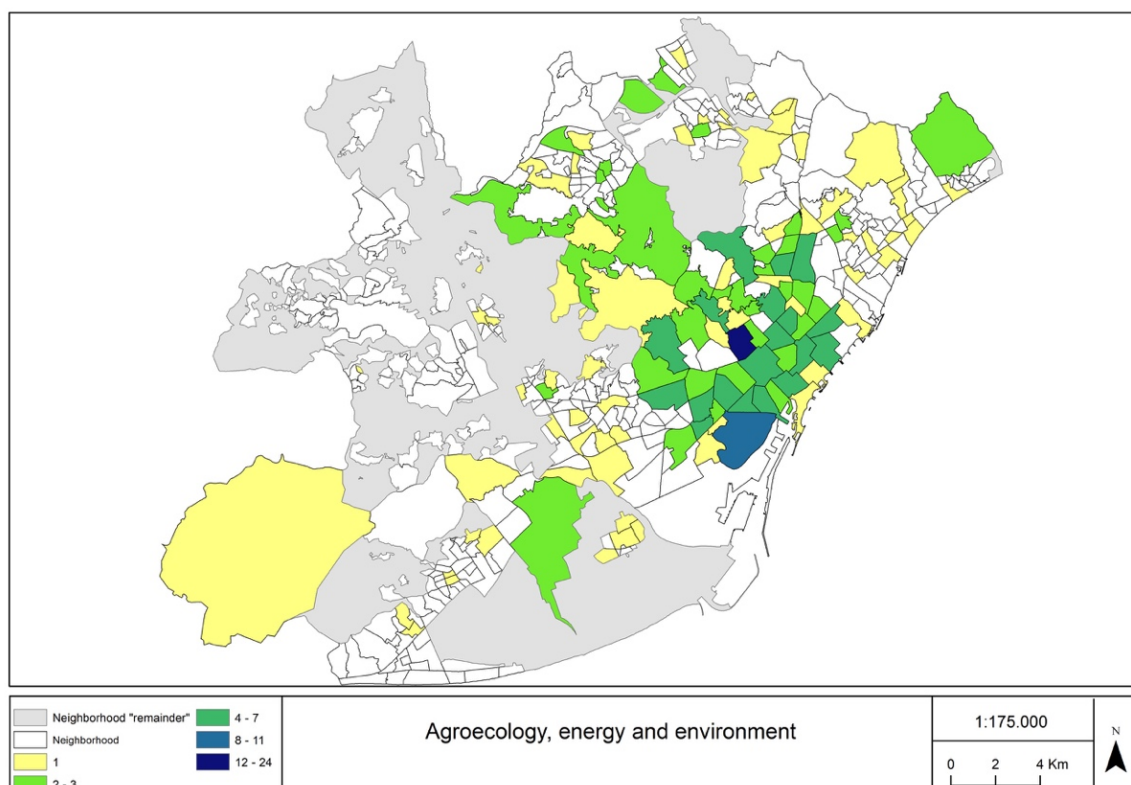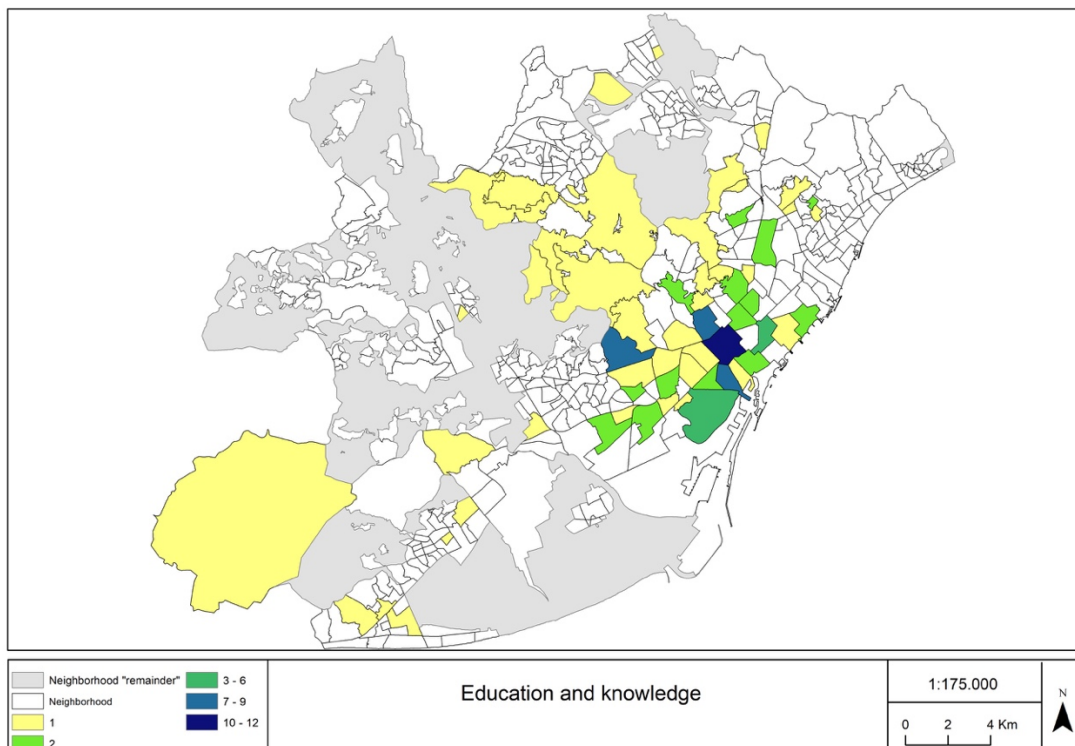

Map 4. Concentration of initiatives in Agroecology, energy and environment.
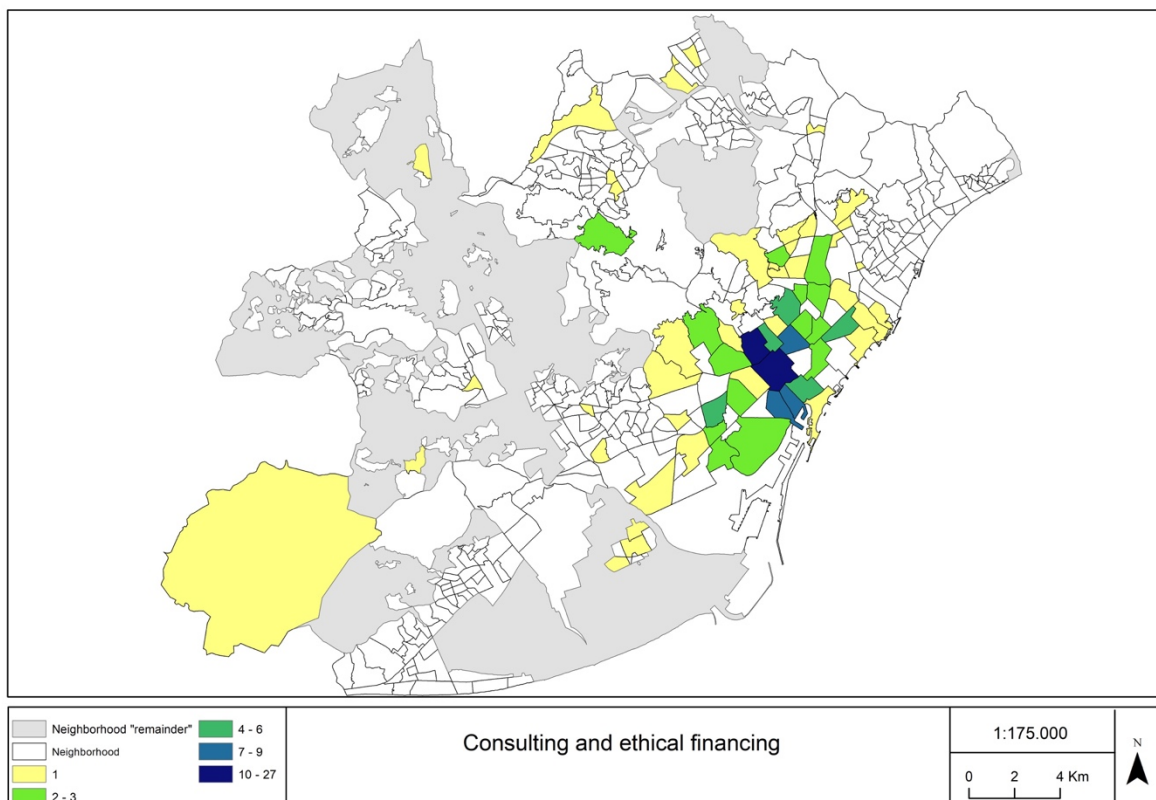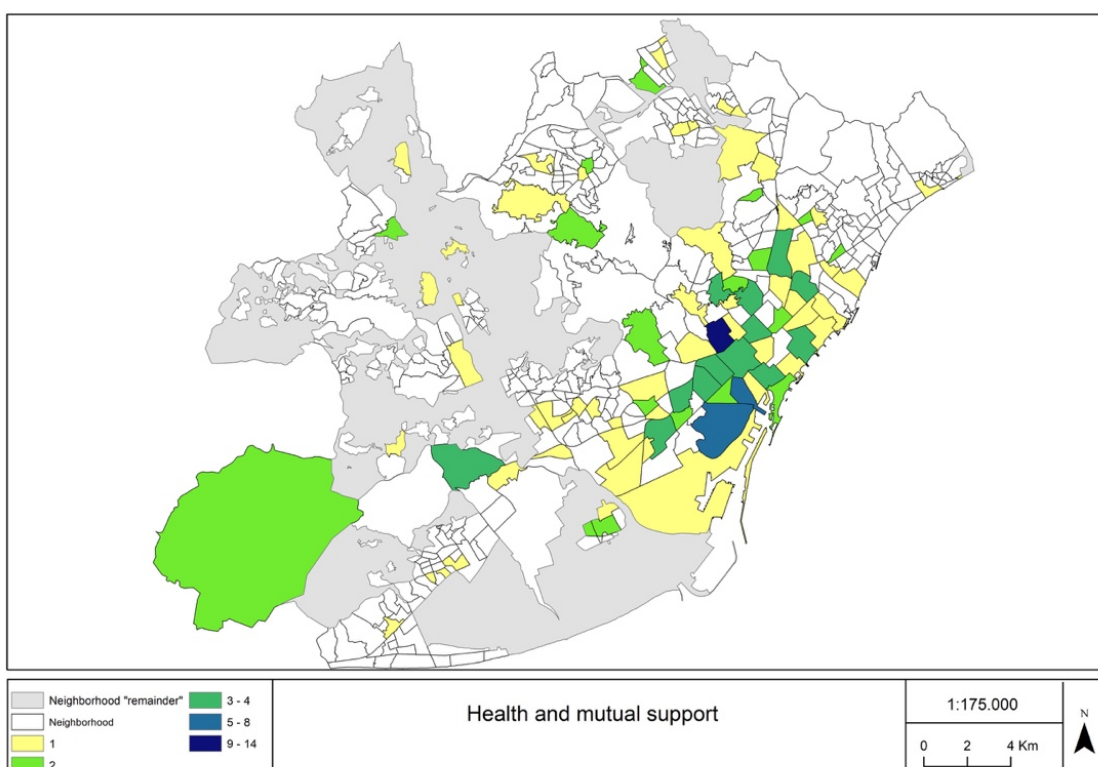
Map 5. Consulting and ethical financing.
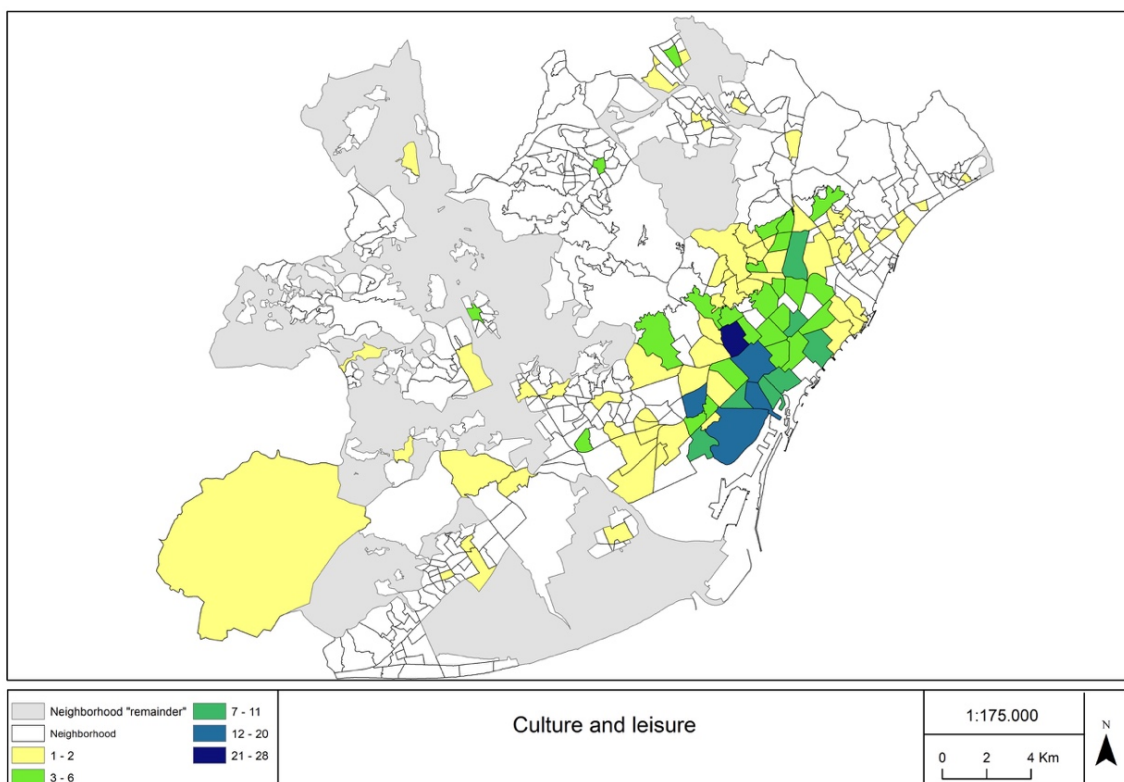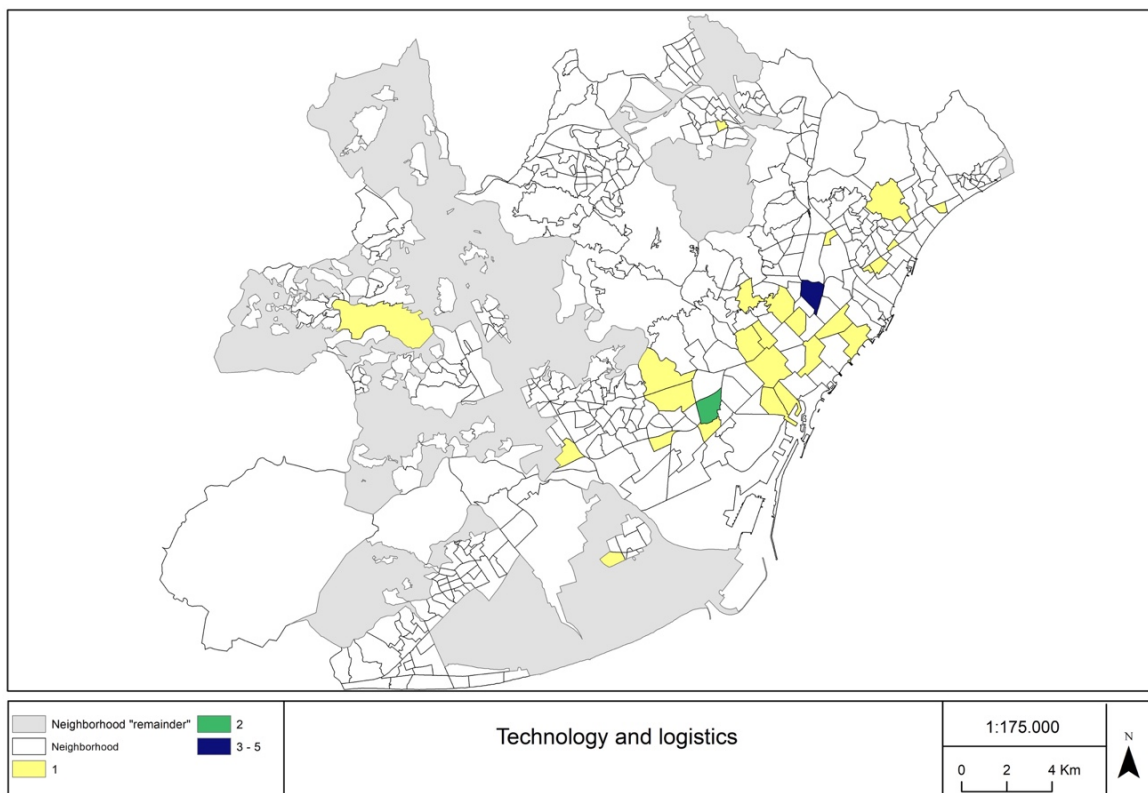

Map 6. Culture and leisure

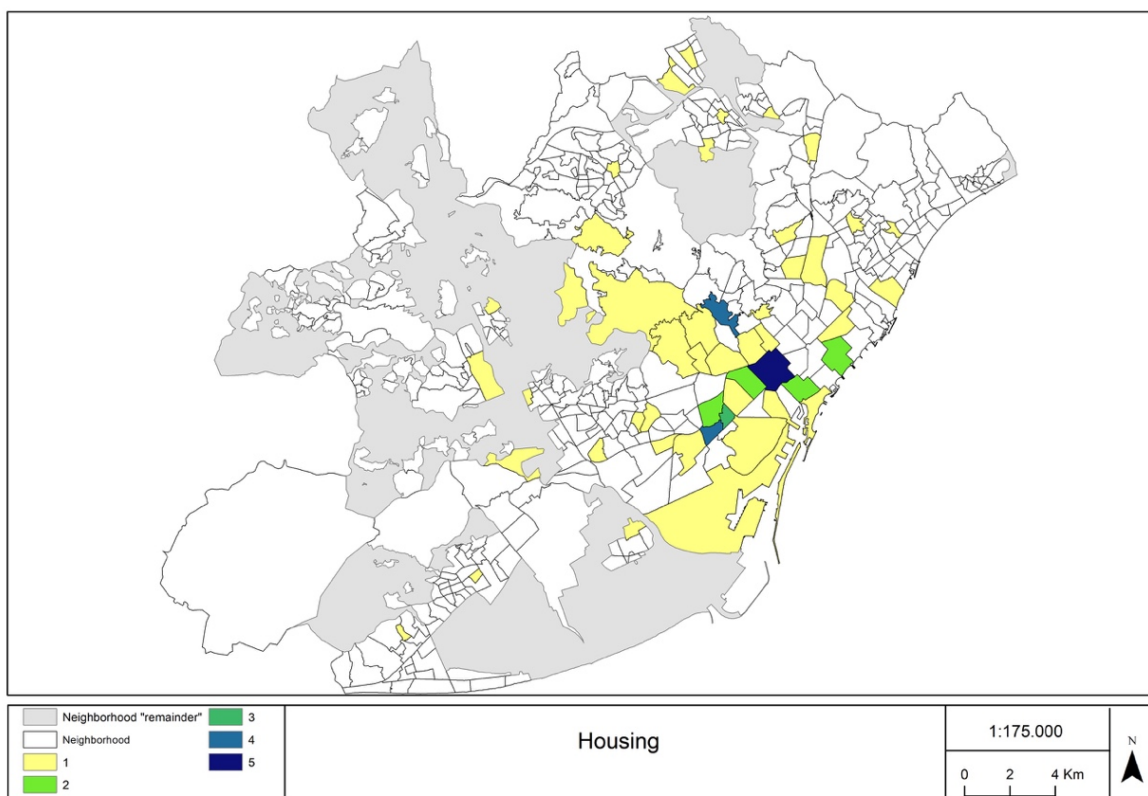**Map 7.** Education and knowledge

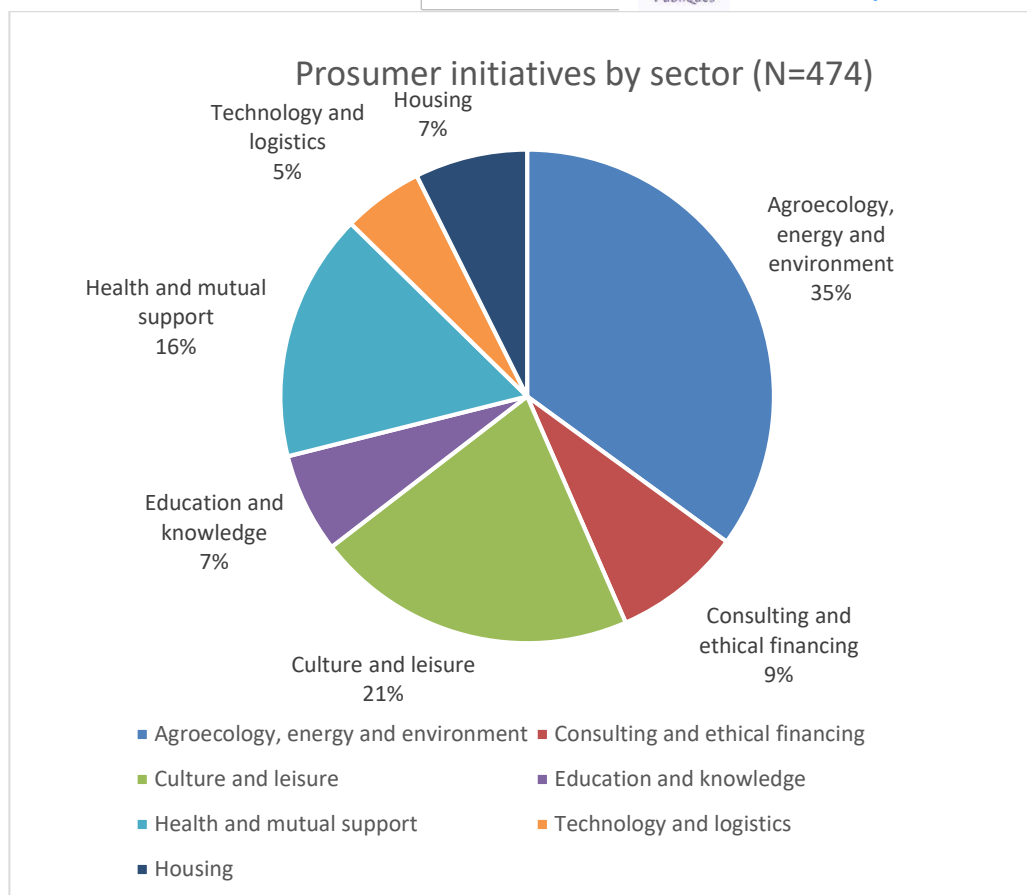**Map 8.** Health and mutual support.

Map 9. Technology and logistics.

Map 10. Housing.
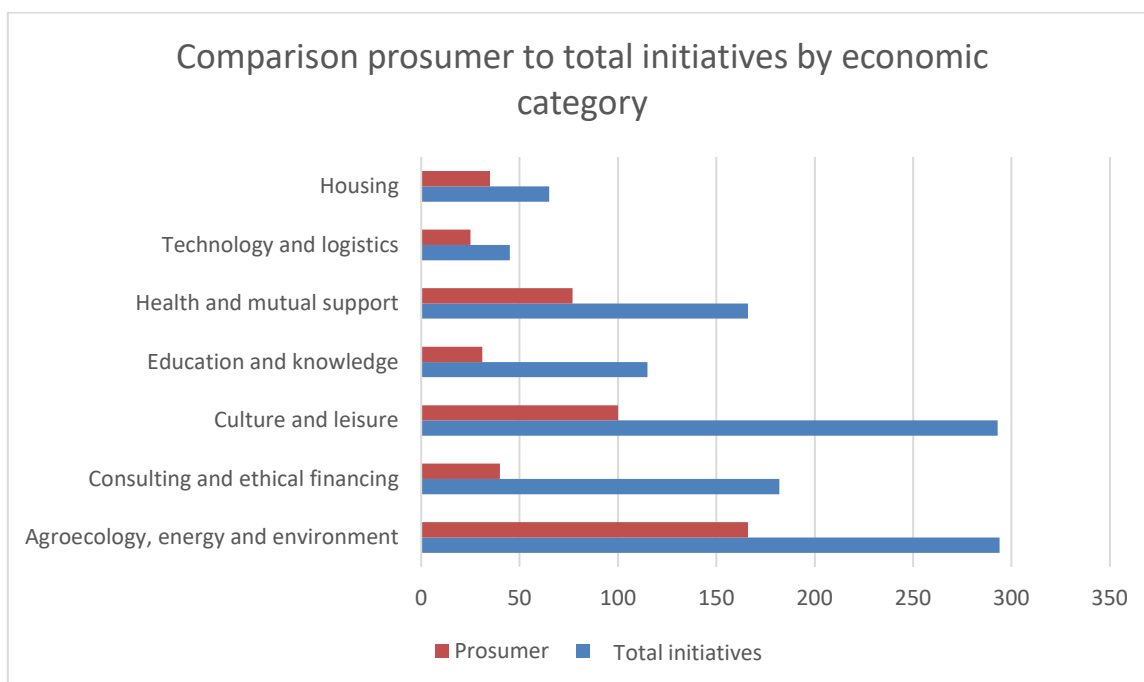
Graph 6. Prosumer initiatives by sector.

If we compare the total number with the number for prosumer initiatives (Graph 6) we can identify that some sectors show a higher presence of prosumer, or commons, initiatives. Specifically, prosumer initiatives constitute 56% of initiatives in Agroecology, energy and environment, 55% in technology and logistics and 54% in housing, followed by Health and mutual support at 46%, culture and leisure at 34%, education and knowledge at 27% and consulting and ethical financing at 22% (percent rounded to the first integral number). In other words, while in absolute terms 'Agroecology, energy and environment' and 'Culture and leisure' include the highest number of prosumer initiatives, in the second case they make up little over 1/3 of all initiatives overall (see table 4 and graph 7).

Maps 11-13 focus on the three categories where prosumer initiatives make up more than 50% of the total. The high percentage of prosumer initiatives relative to the total for the category of *Agroecology, energy and environment* can be interpreted as a result of agroecological developments, food justice cooperative groups and urban gardens. These initiatives are in most cases championed by anti/post-capitalist and social justice urban movements in their alternative imaginaries of social-ecological transformation. Within these imaginaries, they promote its initiatives as strategies towards a common-based urban vision, promoting the right to the city and the right to decide how they consume (Calvet-Mir & March, 2019).

	TOTAL N.	PROSUMER	PROSUMER as % of total
Agroecology, energy and environment	294	166	56,46%
Consulting and ethical financing	182	40	21,97%
Culture and leisure	293	100	34,12%
Education and knowledge	115	31	26,95%
Health and mutual support	166	77	46,38%
Technology and logistics	45	25	55,55%
Housing	65	35	53,84%
TOTAL	1160	474	

Table 4. Comparison prosumer and total number of initiatives by economic sector.

Graph 7. Comparison prosumer to total initiatives by economic category.
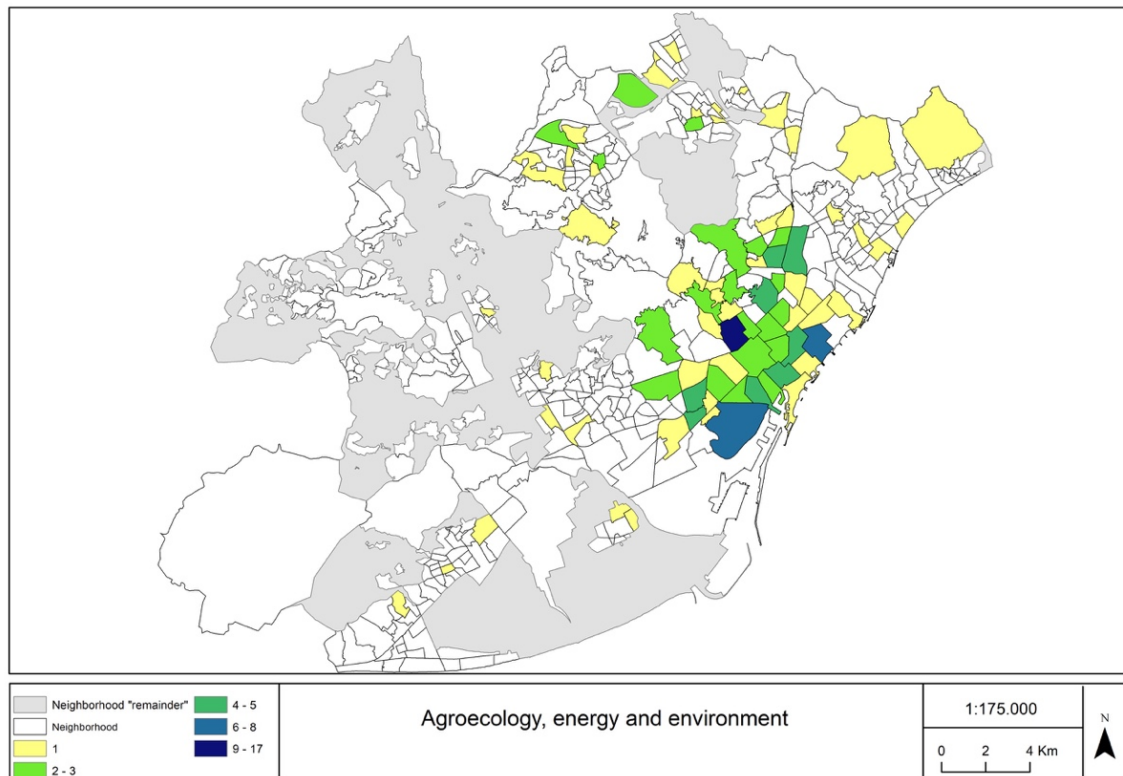
Map 11. Prosumer initiatives in the category *Agroecology, energy and environment.*

Higher percentages of prosumer initiatives in Technology and logistics can be partly explained by the establishment and development of peer-to-peer web-based technologies and organizations, as explored in the already mentioned Peer 2 Peer Project.[6] In terms of distribution (Map 12), beside a high concentration neighbourhoods of La Sagrera, la Vila de Gracia and la Dreta de l'Eixample, a number of neighbourhood show the presence of one prosumer initiative.

The relatively high percentage of commons initiatives under the 'Housing' umbrella can be explained by two main drivers both of which can be considered forms of social innovation that emerged through civic organising in response to the effects of the economic crisis and the mortgage repossession crisis. Of the two drivers of the latter, the first is the presence of neighbourhood-based groups offering advice and support around housing issues, as noted in the Mapa d´innovació social a l´Àrea Metropolitana de Barcelona (IGOP and IERMB, 2016). The second driver is given by the exponential growth of cooperative housing projects and groups in Catalonia, particularly since 2011 (Parés et al, forthcoming; Cabré and Ferreri, forthcoming). As has been observed by many commentators, there are important relationship between the two (Larsen, 2020). Nonetheless, we have drawn on existing literature on housing commons and commoning (Balmer and Bernet, 2015; Bunce, 2016; García-Lamarca, 2015; Huron, 2018) to distinguished between initiatives that demanded external action from those that also included important dimensions of self-organisation (Joubert and Hodkinson,

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[6] Grup Digital Commons (Dimmons-UOC) http://dimmons.net/

2018), which we included. The distribution (Map 13) confirms the pattern of concentration in La Bordeta and la Dreta de l'Eixample seen for the total sample of initiatives, but shows also a dotting across the territory of groups active on housing projects and issues through prosumer practices.
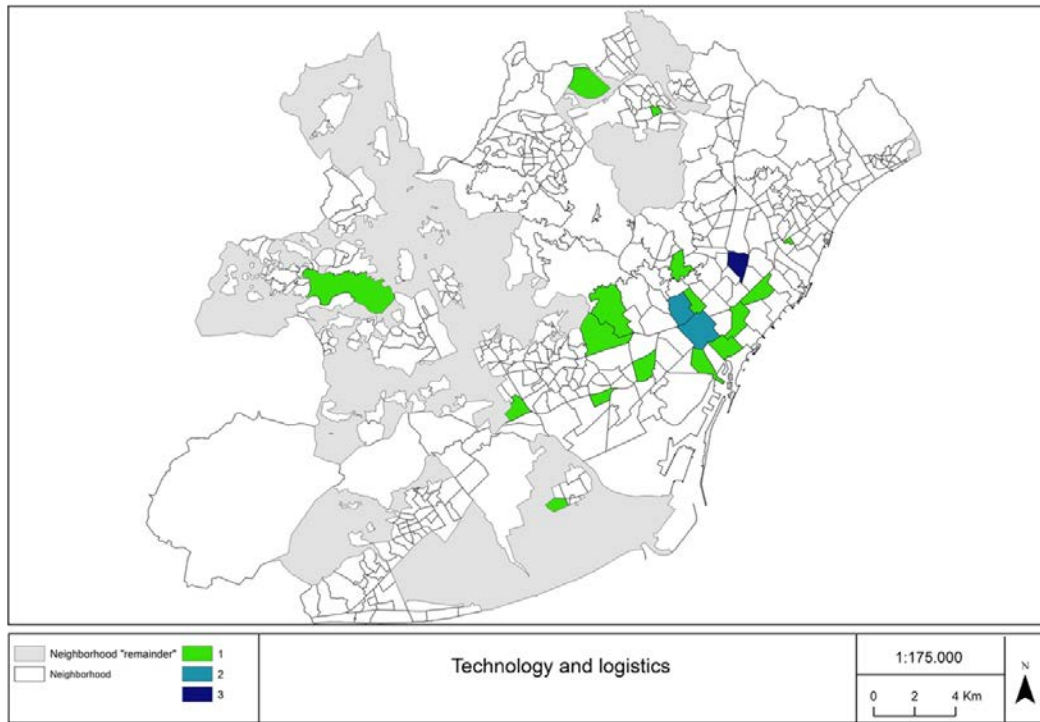
**Map 12.** Prosumer initiatives in *Technology and logistics.*
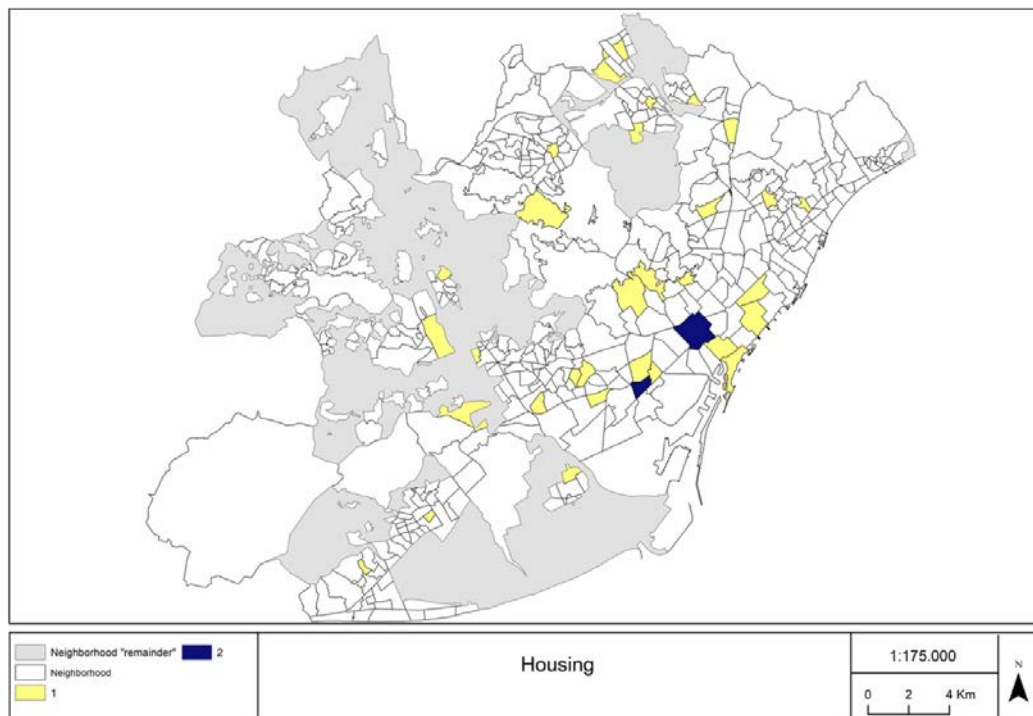
Map 13. Prosumer initiatives in *Housing.*

It is worth mentioning that while the projects mentioned above produced datasets that were incorporated into this study, we were highly selective, as discussed in the Methodology section. The reflections above cannot simply be accounted for in terms of the sources of the database, as there were only limited degrees of overlaps.

3.1.5   Legal status and year of establishment

Data on the legal status of initiatives was uneven, and we have only been able to collect reliable information for 62% of all initiatives. While the following statistics have to be taken with a degree of caution, they are nonetheless interesting. Looking at this sample (N=717), legal typologies are distributes as detailed below (y axis: number of initiatives). Cooperatives is the most frequent legal status, equivalent to 40% of the initiatives, followed by association, 30%, and 21% that identify as Platform, social movement or other informal grouping. They are followed by a 4% of initiatives registered as companies, 4% as foundations and 1%, or 10, initiatives that directly implemented by a local government.
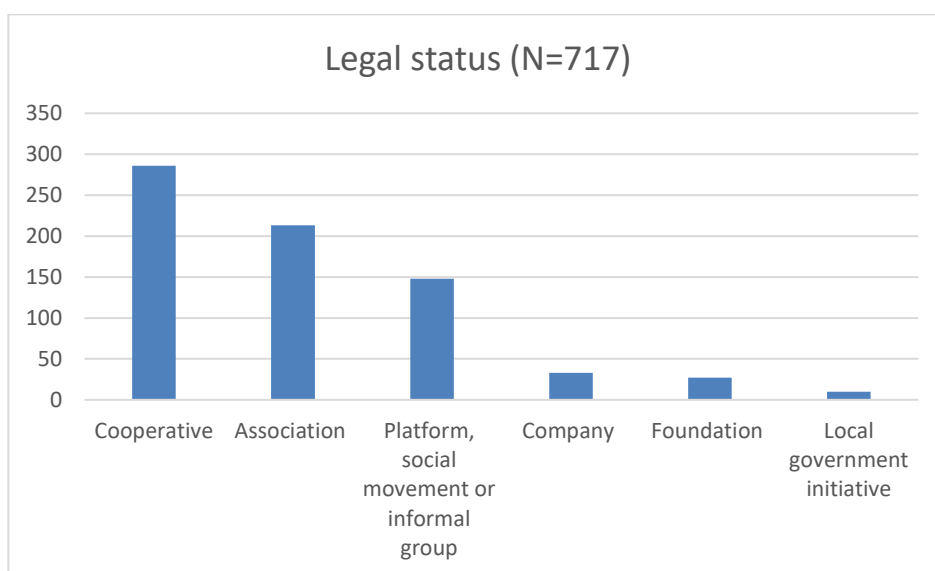
Graph 8. Legal status of initiatives.

If we compare the data above with the legal status known about those initiatives that can be considered prosumer (Graph 9), we see a that the majority of practices categorized as social movements, platforms or informal groupings can be considered prosumers; followed by nearly half of associations and less than a third of initiatives that are formally constituted as cooperatives. The result is unsurprising but could be significative of a wider reflection on the ability to maintain self-organization through institutionalization.
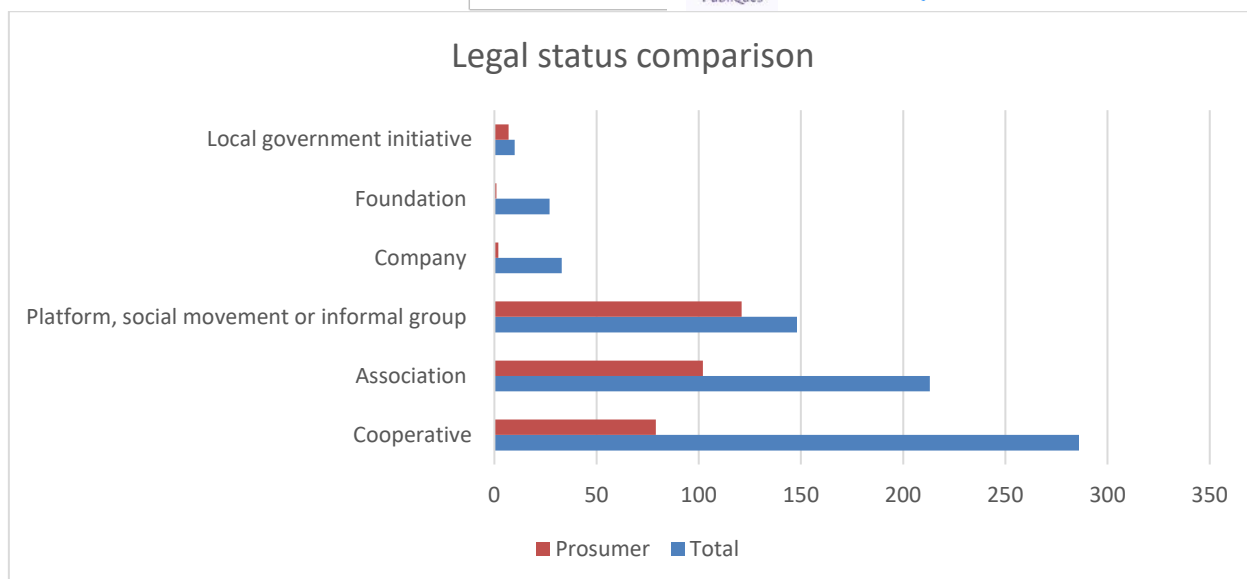
Graph 9. Legal status of prosumer in relation to total number.

In terms of the year of establishment, again we have important gaps and could only ascertained a date for only 59% of our total sample (N=680). Of these, the distribution shows an increase since the 1970s – as expected given the history of the development of the civil society sector during the transition period, with a steep increase since the year 2000 (Graph 10).
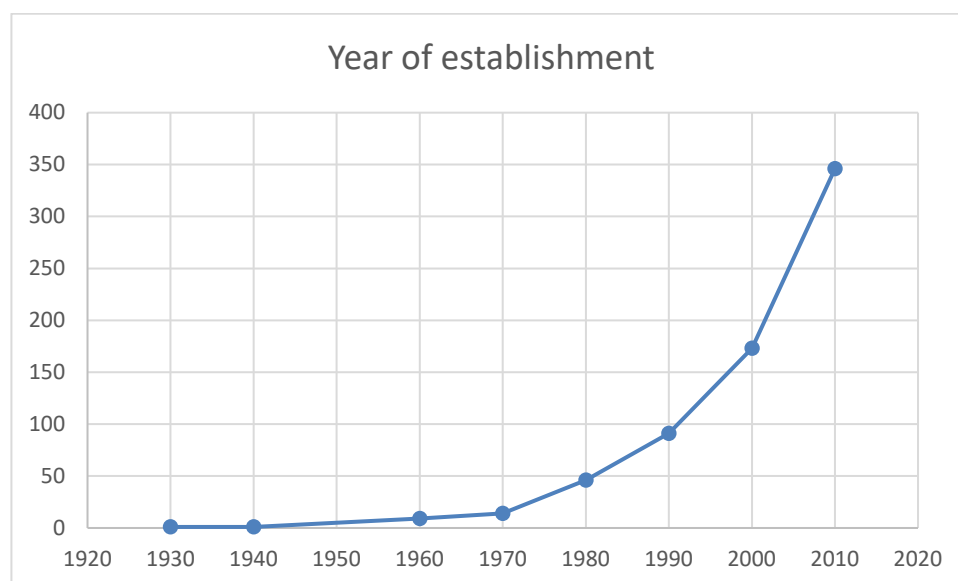
Graph 10. Year of establishment.

More specifically, 77% of all initiatives for which we have data have been established since the year 2000, and 51% since 2010. If we focus to those established after the Global Financial Crisis of 2007/8, we see a clear growth around 2013 and 2014, at the peak of the crisis (Graph 11). This could be accounted for by the growth of platform, social movement and other informal groups responding to the effects of the economic and mortgage crisis (Cruz et al. 2017).
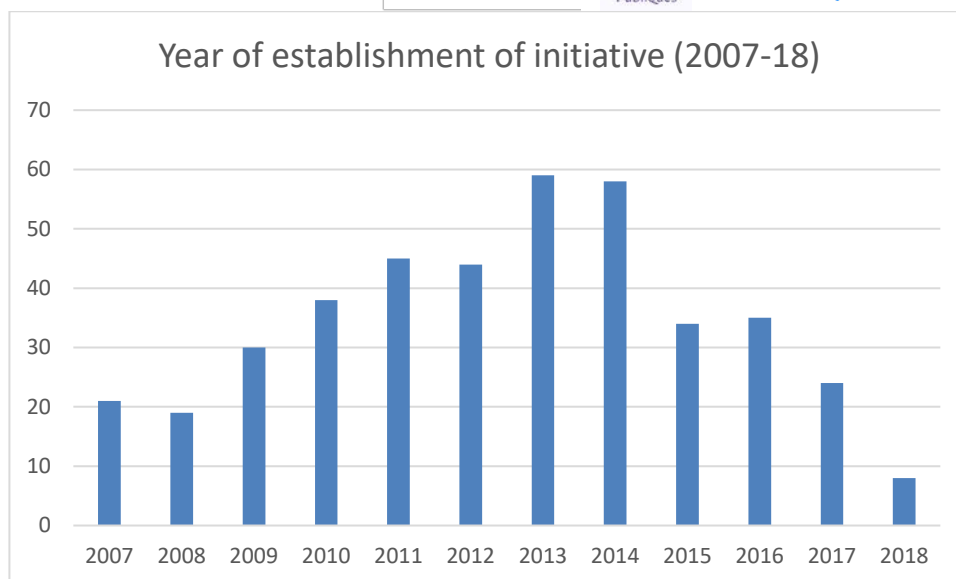
Graph 11. Year of establishment of initiative (2007-18).

3.1.6 Degrees of internal democracy

Internal democracy was a key category that appeared fundamental for deciding whether or not a social and solidarity economy initiatives could be considered a commons. We were only able to access reliable data for a total of 670 initiatives. Internal democracy was categorized as basic or advanced, cross-referencing the category of Pam a Pam and data available, as explained in the Methodology.

Of this sample, 12% (=82) did not show basic internal democracy; 25% (=164) could be classified as manifesting internal democracy, while 63% (=424) could be categorized as of advanced internal democracy. To be classified as a commons it would need to present *advanced internal democracy.* According to this variable, only 424 initiatives complied with our definition. However, the question of internal democracy has proven one of the most complex to address in a systematic way, despite the research and monitoring work realized by the XES through the Pam a Pam criteria.

We thus identify the need for further research, and better integration with existing data based on mechanisms of monitoring and self-monitoring, such as the tools of Balanç Comunitari developed by the Social and Solidarity Economic networks.[7]

3.1.7 Aspiration to internal social and environmental transformation

Commons initiatives are meant to aspire to social and environmental transformation. While the variable of internal democracy is designed to capture transformation internal to the organization, that is, commoning within, the literature points to an homology between forms of organization and wider transformation. This is often discussed as the *prefigurative* dimension of commons.

To categorize initiatives we have considered the initiative's mission statement and aims, as publicly expressed on websites and publications, as well as their compliance with Pam

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[7] http://xes.cat/2018/11/29/el-balanc-comunitari-un-nou-itinerari-que-enriqueix-el-balanc-social/

a Pam criterial of transformative social and solidarity principles such as feminist and gender equality mechanisms. We considered the above 'internal' to the practices and organizations themselves, as their main aim is to transform organizationally towards more socially and environmentally just economic activities. Data was available for 57% of the total (N=669).
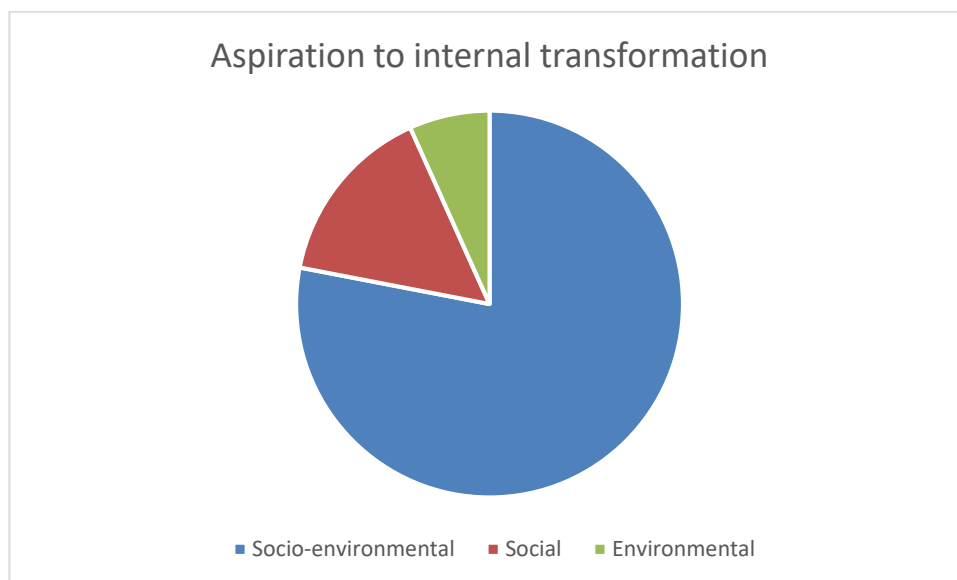
Graph 12. Aspiration to internal transformation (N= 669).

The results are as follows: 78% aim at socio-environmental transformation, 15% only at social transformation and 7% only, or mainly, at environmental transformation. This result is a clear indication of a growing ecological sensitivity in the social and solidarity economy sectors, alongside social concerns (Graph 13).
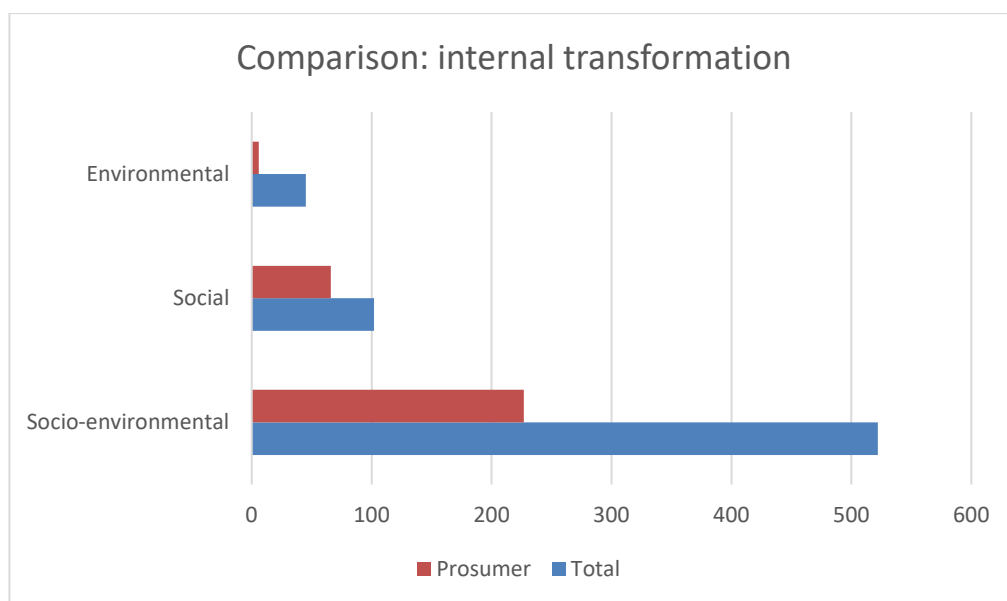
Graph 13. Comparison internal transformation prosumer to total N initiatives.

3.1.8 Aspiration to external socio-environmental transformation

A very different result concerns what we have categorized as the aspiration to external transformation beyond the community of commoners itself. Data was more available on this issue as we were able to collect information for 94% of all initiatives (N=1093). Of these, over half (52%) had as social transformation as their stated objective, while only 37% had aims that could be defined as socio-environmental; 5% were only aiming at environmental transformations (Graph 14).
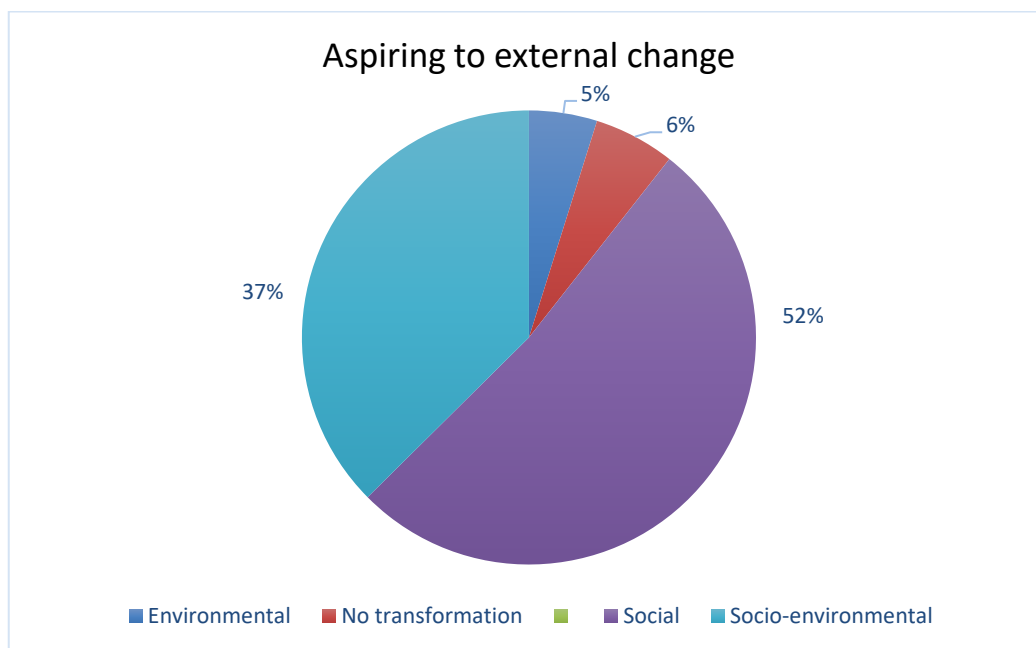
Graph 14. Aspiring to external change (N=1093).
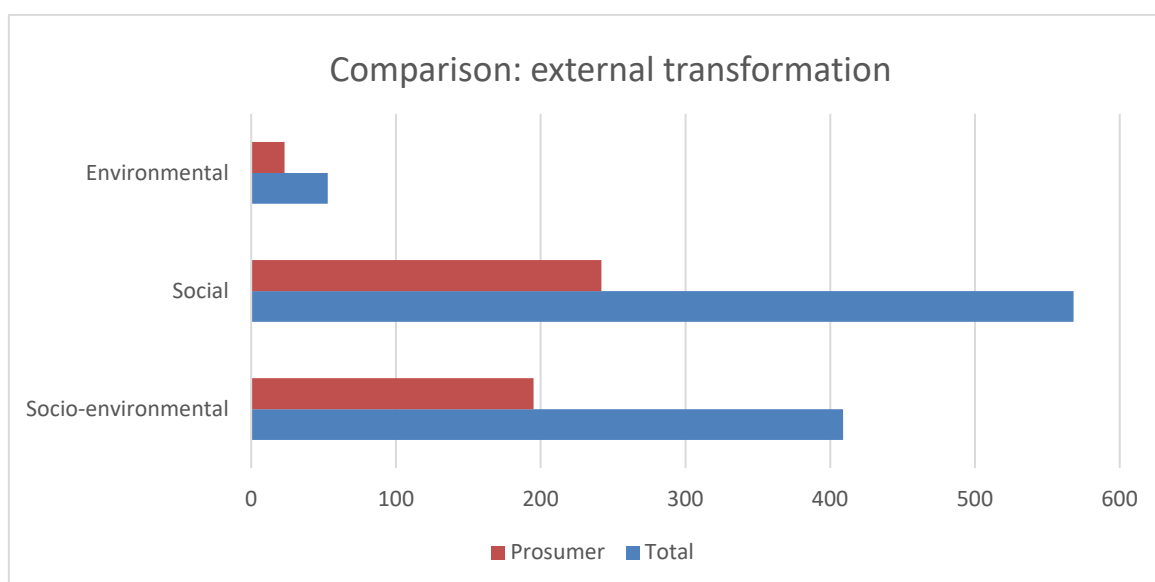
Graph 15. Comparison external transformation prosumer to total N initiatives.

As a result of these comparisons, we can conclude that while in terms of internal practices there is a high sensitivity to environmental concerns, in terms of the wider

benefits of the initiatives, the projects see themselves as acting mostly for the social good, followed by socio-environmental considerations. The difference between the two scope of transformation – internal and external – could be a result of the limited data for internal social and environmental transformation, or a reflection of a slower development of specific aims around the environmental impact of the economic practices.

Barcelona	170
l'Hospitalet de Llobregat	12
Cerdanyola del Vallès	8
Santa Coloma de Gramenet	7
el Prat de Llobregat	6
Sant Cugat del Vallès	6
Badalona	5
Cornellà de Llobregat	5
Molins de Rei	5
Badia del Vallès	4
Ripollet	4
Barberà del Vallès	2
Castelldefels	2
Esplugues de Llobregat	2
Gavà	2
Montcada i Reixac	2
Montgat	2
Sant Boi de Llobregat	2
Sant Feliu de Llobregat	2
Viladecans	2
Begues	1
la Palma de Cervelló	1
Pallejà	1
Sant Adrià de Besòs	1
Sant Joan Despí	1
Sant Vicenç dels Horts	1
Total general	256

Table 5: prosumer initiatives aiming at social transformation.

Looking at the geographical distribution according to aspiration to external transformation (Maps 14 and 15), we can identify a similar spatial pattern. With the exception of one neighbourhood in Barcelona (Galvany), major changes in concentration only occur in neighbourhoods with low concentration (equal or below 4 initiatives).[8]

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[8] Note the different legends with similar colours for different bracketing.
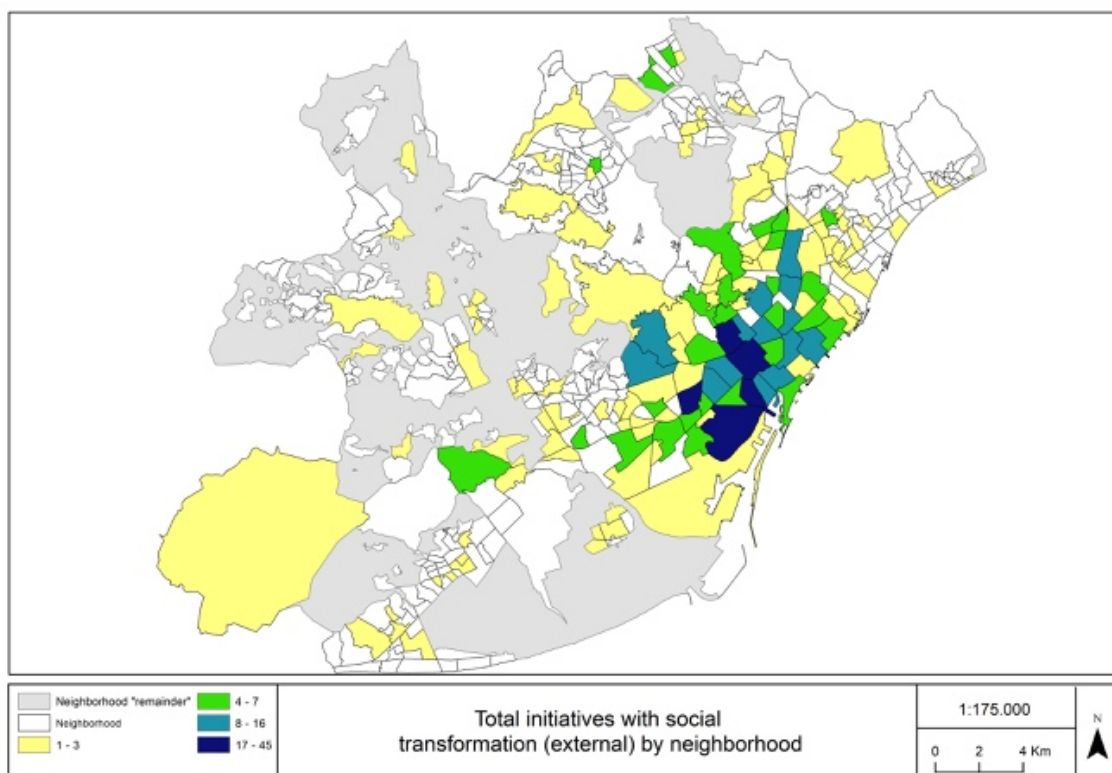
Map 14. Concentration of total initiatives with social transformation (external) by neighbourhood.
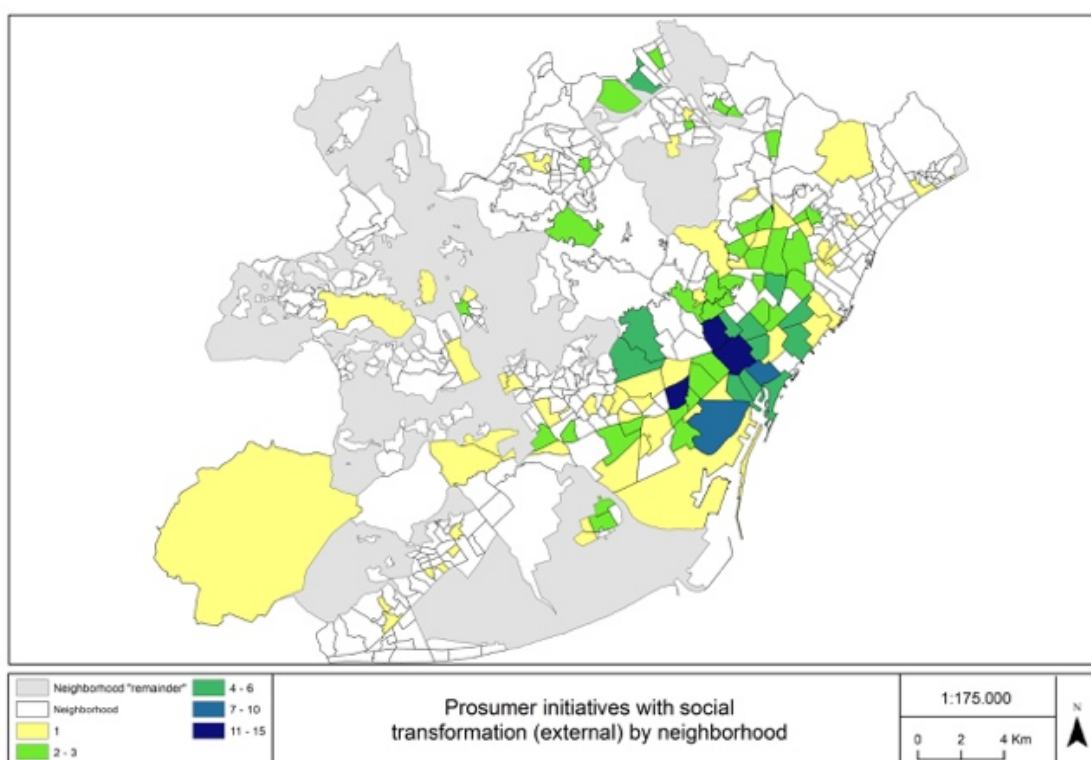
Map 15. Concentration of prosumer initiatives with social transformation (external) by neighbourhood.

The distribution of socio-environmental transformation follows a similar comparative pattern of prosumer initiatives in relation to the total sample (see Maps 16 & 17).
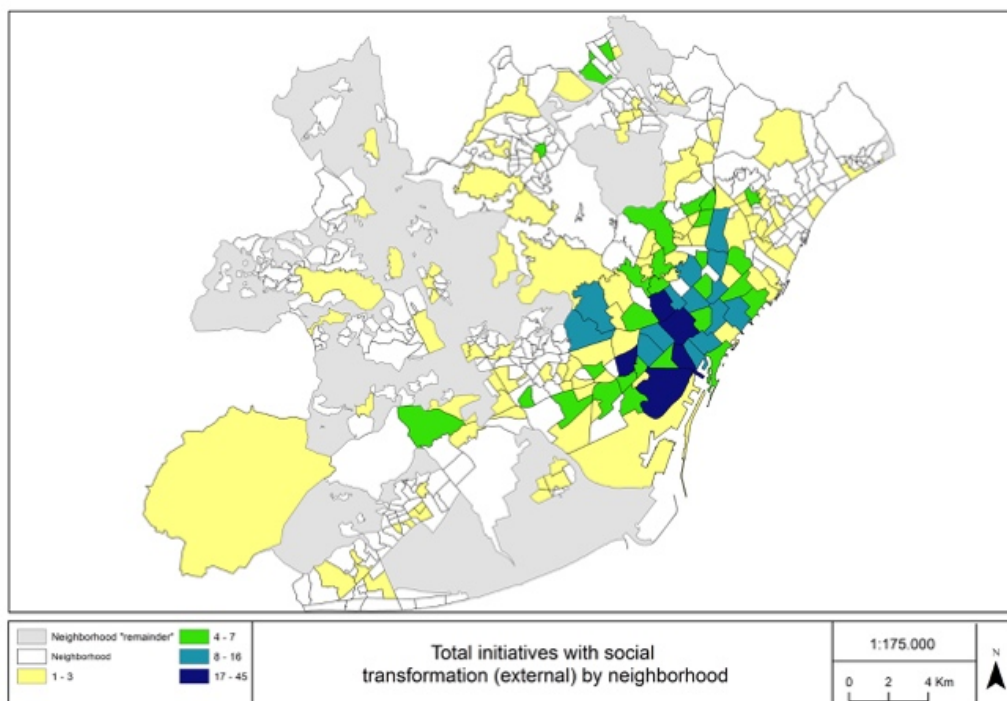
Map 16. Concentration of total initiatives with socio-environmental transformation (external) by neighbourhood**.**
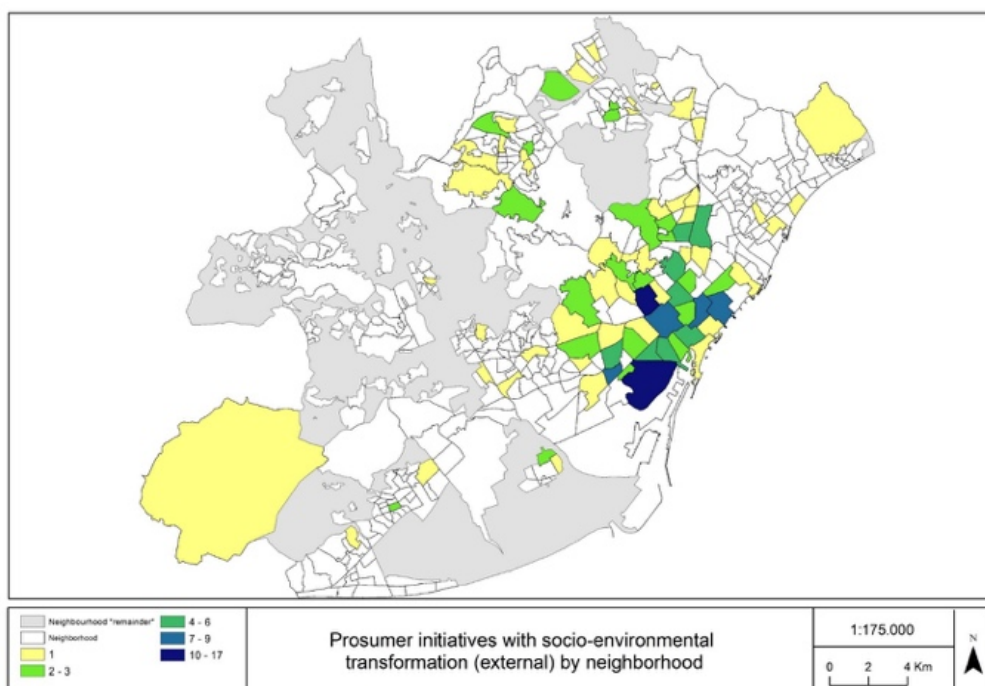
Map 17. Concentration of prosumer initiatives with socio-environmental transformation (external) by neighbourhood**.**

3.1.9 Alternatives to market and Welfare provision

In terms of the position of the initiatives to market and Welfare provision, in 95% of the cases we had sufficient data to categorise them as alternative to one or the other, or both.
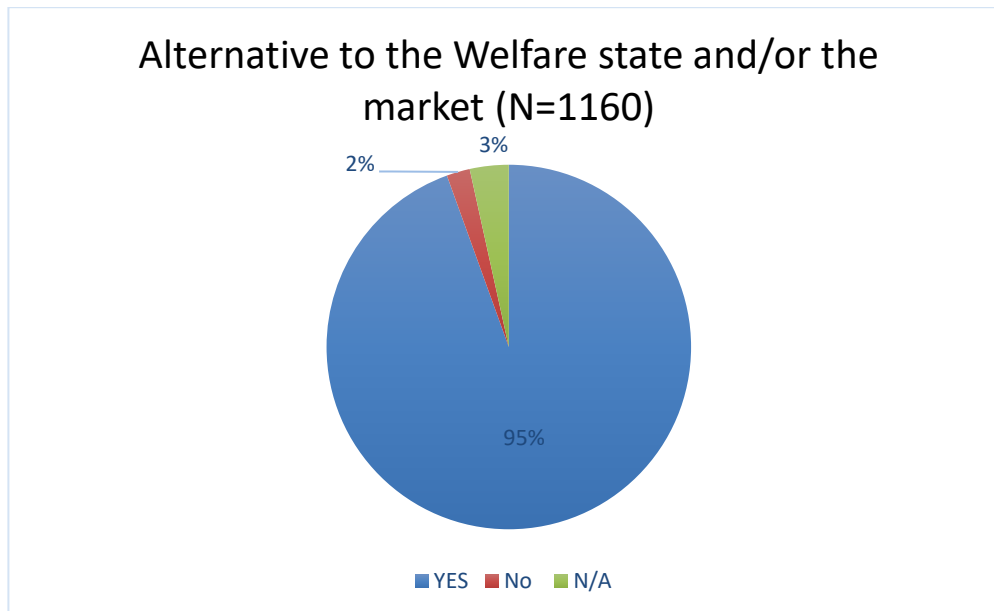
Graph 16. Alternative to the Welfare state and/or the market.

In other words, 1096 initiatives could be considered as offering an 'alternative'. The highest number, corresponding to 43% of the total, could be considered alternative to market provision; 38% as alternative to both market and Welfare provision; and 19% as alternative to the welfare state (Graph 17).
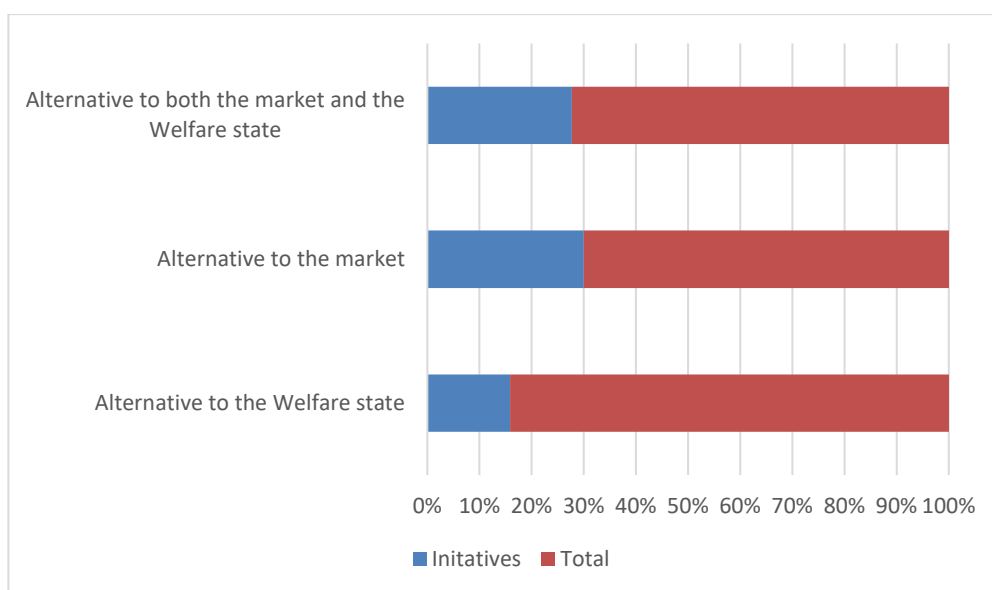
Graph 17. Initiatives that represent 'alternatives' as percentage of the total.

	Alternative to the Welfare state	Alternative to the market	Alternative to both the market and the Welfare state
Agroecology, energy and environment	26	184	83
Consulting and ethical financing	18	121	29
Culture and leisure	13	104	167
Education and knowledge	64	9	31
Health and mutual support	83	6	52
Technology and logistics	1	32	8
Housing	2	13	50
TOTAL	207	469	420

Table 6. Distribution of initiatives according to the category of *Alternative to.*

The graph outlines the distribution by sector (in blue are the alternative to the Welfare state, in red alternative to the market and in green alternative to both).
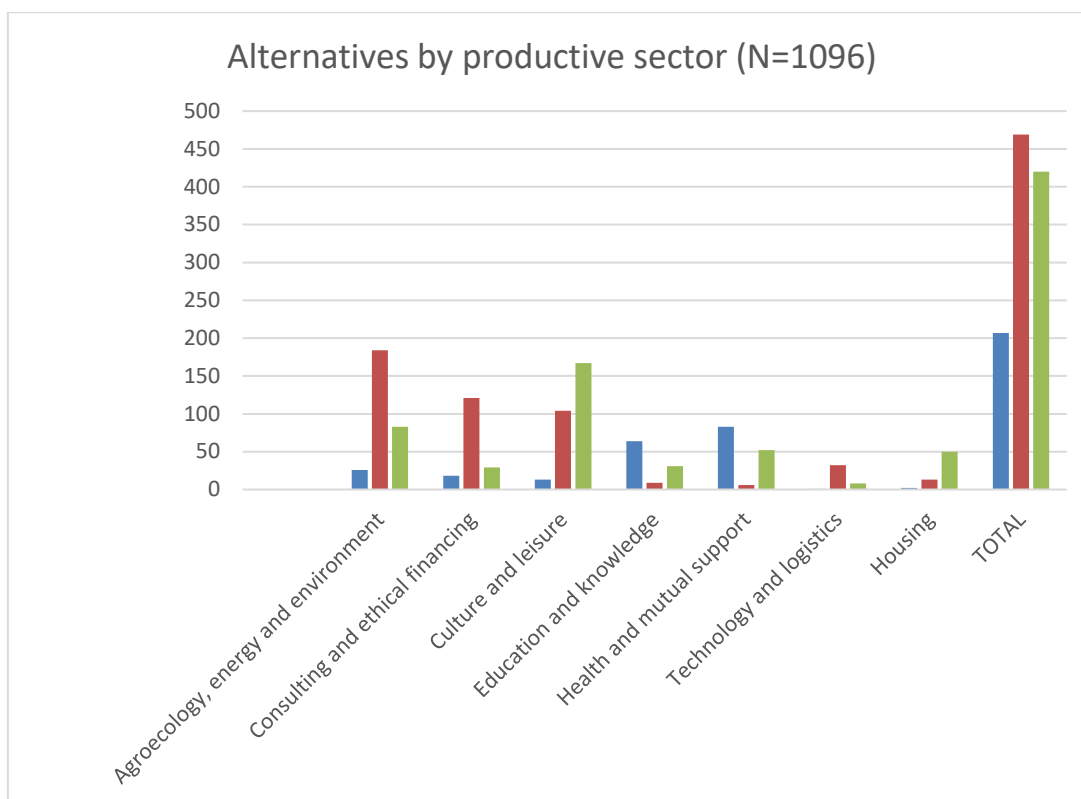
Graph 18. Alternatives by productive sector (N=1096).

What we can notice is in Agroecology, energy and environment, market provision is what is most commonly challenged by these initiatives, and similarly in the sector of financing and consulting (Graph 18). In education and knowledge, as in Health and mutual support, they are instead mostly positioned as alternatives to welfare provision.

3.1.10 Relationship with the public administration

While commons are often described (and self-defined) as alternatives to both market dynamics and the logics of welfare state provision, this view has been criticised as too simplistic to account for the often complex interconnection between commoning initiatives, economic activity and the state (Cumbers, 2015). As observed by Cruz et al, (2017) relationship between practices of self-governing and self-management are often seen as challenging institutionalised power, and as "living proof of the deficient state" (Swyngedouw and Moulaert, in Cruz et al, 2017: 226), yet empirical studies often show that the relationship between grassroot initiatives and public administration can go through phases of co-operation.

Debates on the relationship between practices of commoning and the role of local, regional and central governments are increasingly demanding a higher degree of sophistication, acknowledging substantive differences between forms of government intervention and support, as well as important local histories, often referred to as questions of path dependency. Additionally, the 'institutional density' of a territory can be a significant variable in understanding the reasons for economic success (Anton-Alonso et al, 2017).

At the level of our descriptive statistical analysis, the question of relationship with the public administration was addressed by seeking evidence of such relationship. The nature of that relationship can vary considerably, from occasional coordination of one-off events or receipt of subsidies for a programme of activities, to much more integrated forms of co-production extended over time and covering a range of activities (Pestoff et al, 2013). An example of this is, in the city of Barcelona, the recently approved legal framework called "Patrimoni ciutadà". This framework was created in 2017 in order to sistematise the different procedures through which the local public administration grants the use and the management of public civic centres, buildings and squares to community organisations. The framework explicitly defines these spaces as urban commons as they are directly managed by the community who uses and benefitted from them. According to the Patrimoni Ciutada, this form of commons governance can become a means to empower communities and strengthen democracy.[9]

As visible in Graph 19, 43% of the initiatives under study do not display any direct relationship with any level of the public administration, while 40% of the sample did.

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[9] Patrimoni ciutadà d'ús i gestió comunitàries (Ajuntament Bcn)
https://ajuntament.barcelona.cat/participaciociutadana/sites/default/files/documents/comunsurbans_doc_sm_0.pdf

Relationship with public administration N=1160
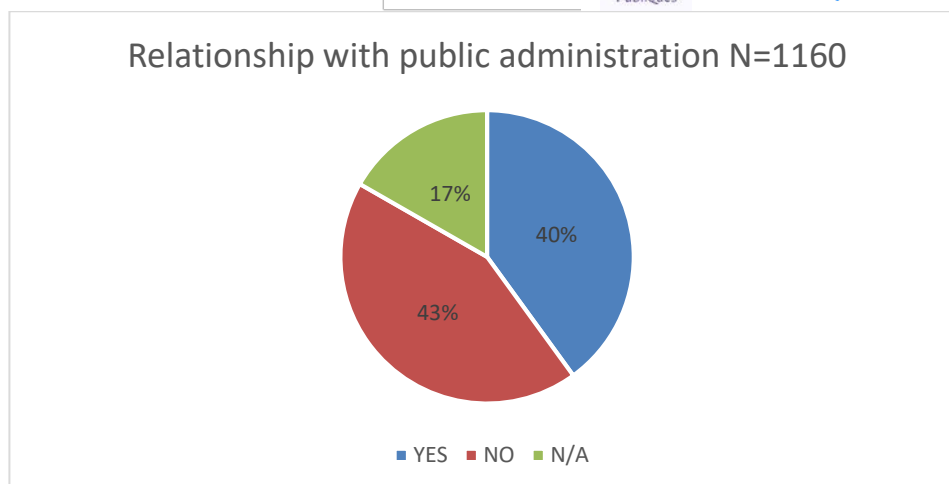
Graph 19. Relationship with public administration (N=1160).

As will be discussed in more detail in the next section through interviews with selected initiatives in two territories, the lack of relationship to the public administration can have different causes. Some initiatives may have strong political reasons related to a desire for financial and political autonomy, while others may not have found themselves needing their support or do not see how establishing a relationship with public institutions could be beneficial to their activities.

If we focus on the 464 initiatives that display a relationship with the public sector (graph 18), the breakdown is as follows: 59% of all initiatives had relationship to the municipal administration, either through subsidies or service agreements, or other forms of relation; 29% had relationship with both local and supra-local public administrations, and 12% only had relationships with regional or state institutions. In other words, 84% of initiatives that expressed a relationship with the public sector had a direct relationship with municipal administrations.

Relationship with the public administration
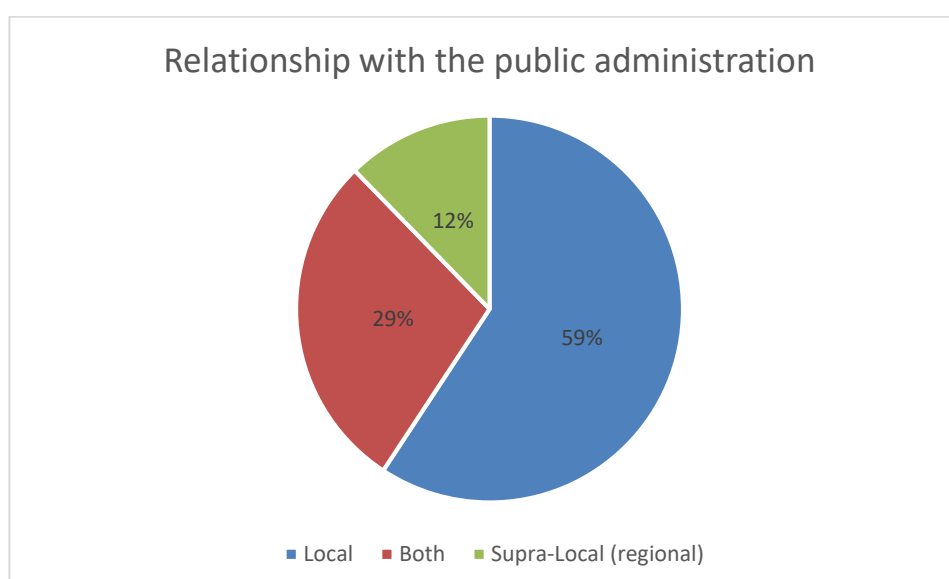
Graph 20. Relationship with the public administration (N=464).

In terms of absolute numbers, the 213 neighbourhoods of the AMB with over 5 initiatives show different distribution of initiatives with and without public support (Graph 21).

Graph 21 presents some interesting entry points to shed light on the clustering of initiatives in specific neighbourhoods of the city. Neighbourhoods such as as Gràcia, Sants and Poblenou have been consistently seen as hotspot for grass-root social innovation after the crisis in Catalunya (Cruz et al, 2017). All top neighbourhoods in Graph 19 could be characterised as middle-income areas with significant social mix and a consistent tradition of community mobilisation. One hypothesis that explains this concentration is that:

> social initiatives like social finances, cooperative consumer groups, sustainable energy cooperatives, etc. are better adapted to middle-income and progressive social groups because of two main reasons: first, engagement in these practices requires a significant level of political sophistication, which is more common amongst people with a middle or high socio-educational status; second, the involvement in this type of practice often entails some economic extra-costs – organic food consumed in consumer cooperatives, for example, tends to be more expensive than in conventional supermarkets, and more easily afforded by highly committed and relatively well-off people (Cruz et al, 2017: 237).
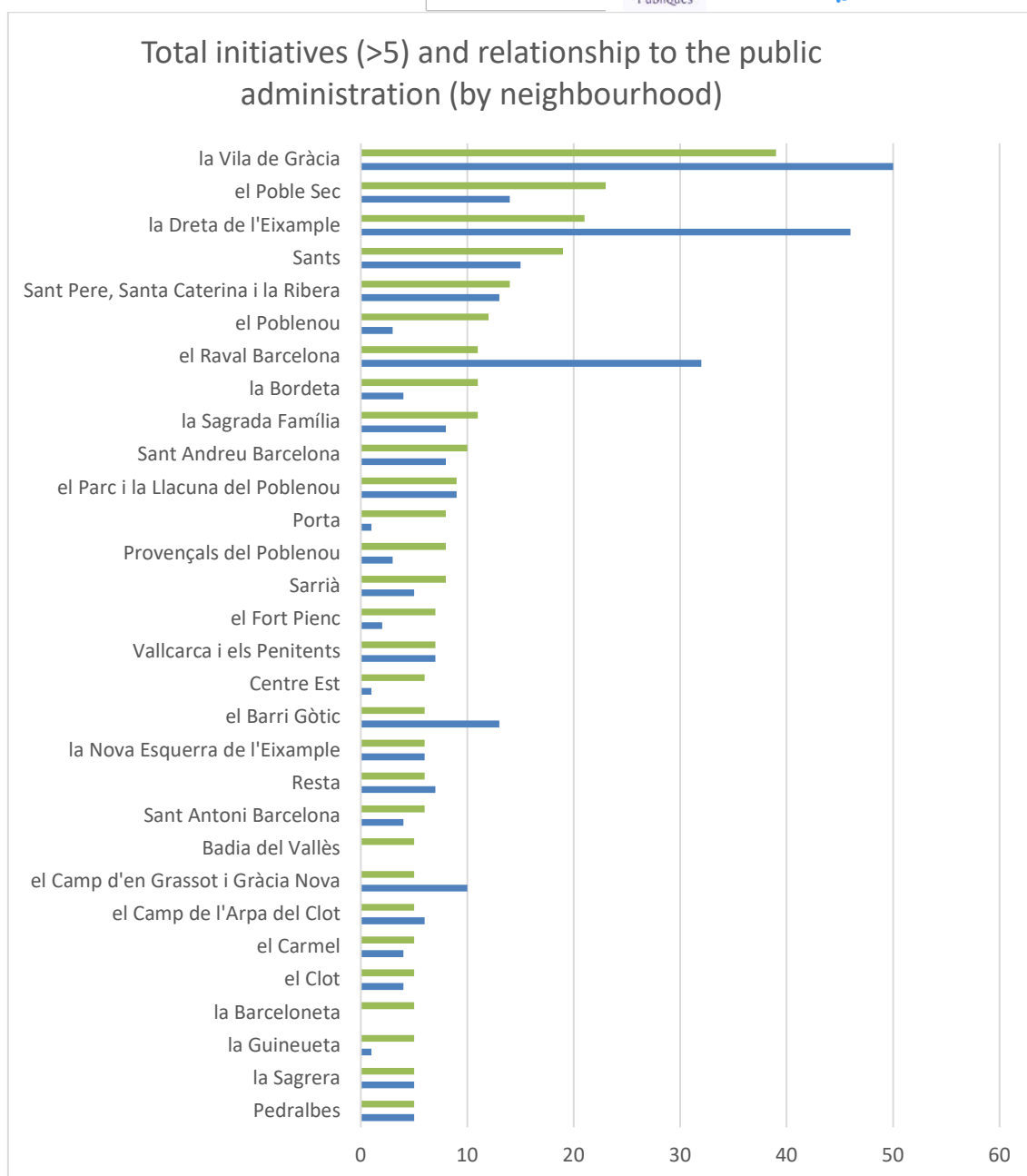
Graph 21. Comparison between number of initiatives with and without relationship to the public administration (by neighbourhood). The column in green shows the number that have a relationship with public administrations while the blue shows those that do not.

When we observe the number of initiatives that have some relationship with the – as we saw above, mainly municipal – administration, then we could also venture the hypothesis that alongside the factors outlined above, the presence of the municipality, in this case Barcelona, plays an important role. Whether municipal intervention and support precedes or follows the high density of initiatives is not something that we can possibly ascertain without a more in-depth analysis, as discussed in the next section.

Two points for further investigation are the wide gap – in El Raval and in La Dreta de l'Eixample – between a relatively high number of initiatives that don't present any relationship with public administrations, and those that do. A more advanced and detailed analysis of the above results might provide a spatialized indication of longer

histories of the presence of public institutions, as well as their absence. This data should furthermore be analysed in relation to what Anton-Alonso et al have discussed, in relation to citizen responses to the crisis in the Metropolitan Area, under the concept of 'institutional density' (Anton-Alonso et al, 2017).

RELATIONSHIP PROSUMER-PUBLIC ADMINISTRATION

■ SI ■ NO ■ N/A
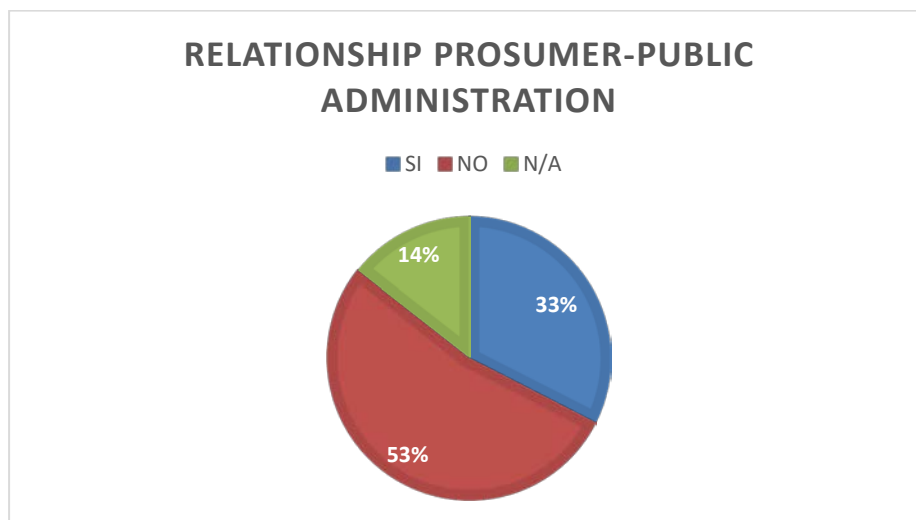
Graph 22. Relationship between prosumer initiatives and public administration.

In contrast to the total initiatives, prosumer initiatives tend, overall, to show a marked tendency not to entertain relationship with the public administration (53%), although 33%, 1 in 3, do. Graph 23, below, visualizes this different distribution.

Relationship with the administration: comparison
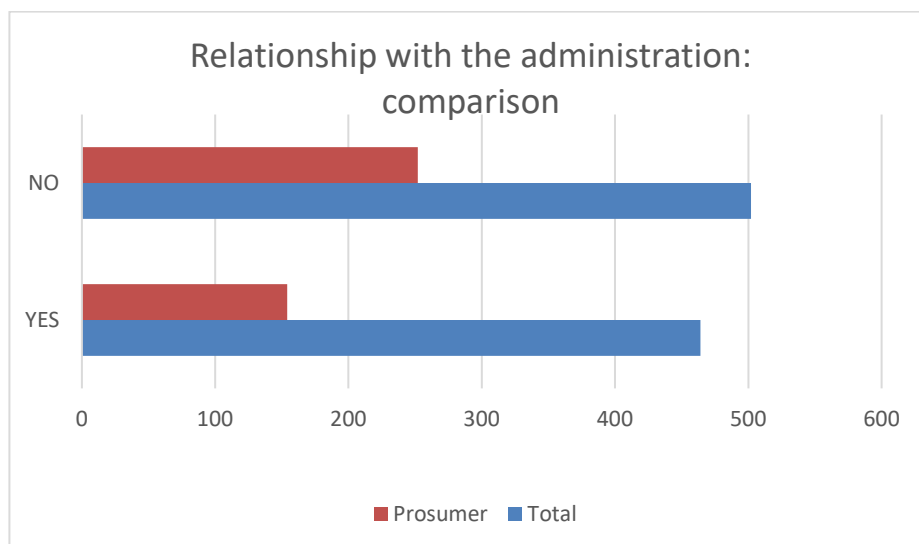
■ Prosumer ■ Total

Graph 23. Relationship with the public administration: comparison prosumer to total N initiatives.

To a far greater degree than in the case of all initiatives, for prosumer initiatives that have relationship with the local administration, the majority (71%) related to the local (municipal) administration, 20% to both local and supra-local (regional and central), while only 9% only relate to supra-local administrations. (Graph 24).

Graph 24. Relationship with the public administration by scale.
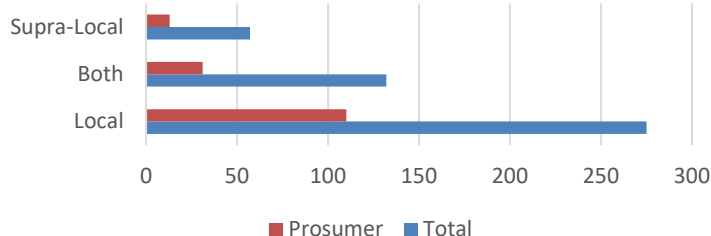
Graph 25. Relationship prosumer to total N for level of public administration.

Graph 26. Relationship prosumer commons initiatives (>5) and public administration (by neighbourhood).

The patterns of spatial distribution show similarities as well as difference, both in relation to municipal administration and to both municipal and supra-municipal, as can be appreciated in the comparisons below (Map 18 and 19) and in the following pages (Map 20 and 21).
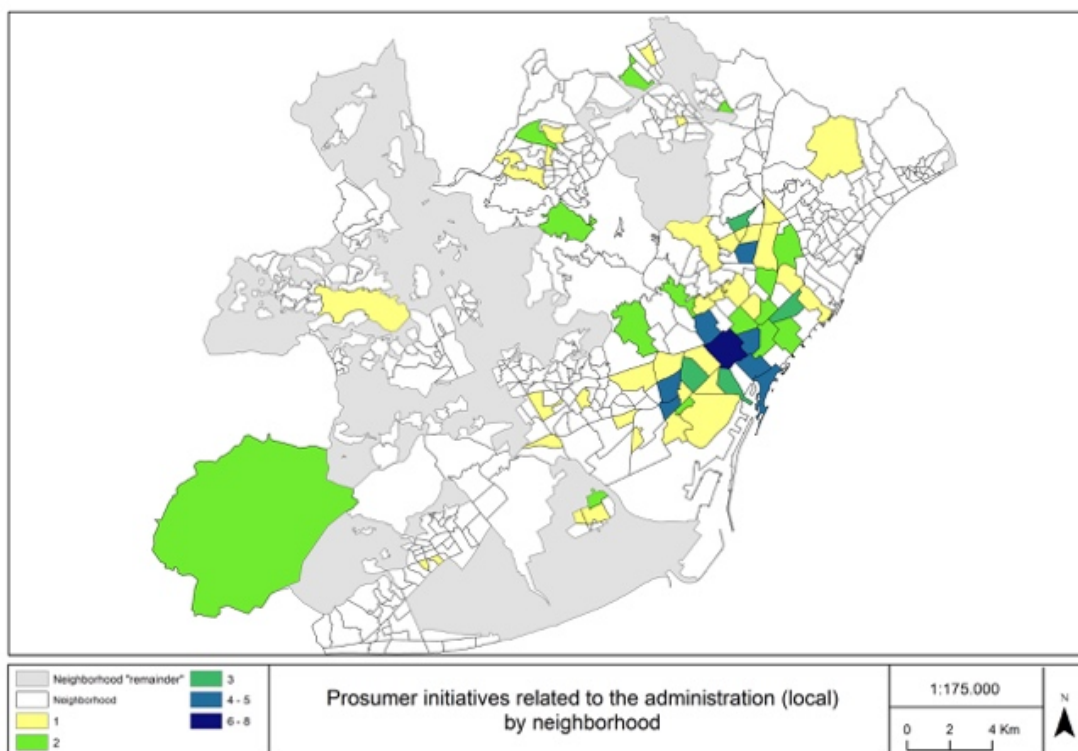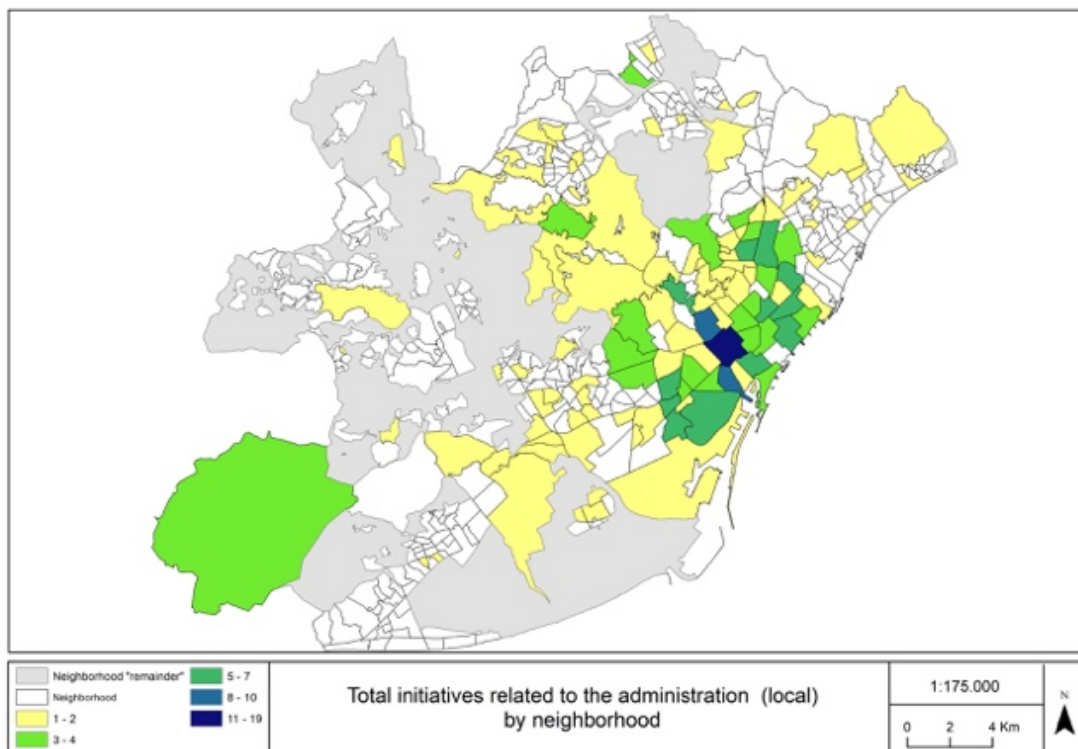
Map 18 & 19. Concentration of total (Map 18) and prosumer initiatives (Map 19) that express a relationship to local public administration.

Neighborhood "remainder"	4 - 7
Neighborhood	8 - 11
1	12 - 17
2 - 3	

Total initiatives related to the administration (both) by neighborhood

1:175.000

0   2   4 Km

N

Neighborhood "remainder"	2
Neighborhood	3
1	4

Prosumer initiatives related to the administration (both) by neighborhood

1:175.000

0   2   4 Km

N
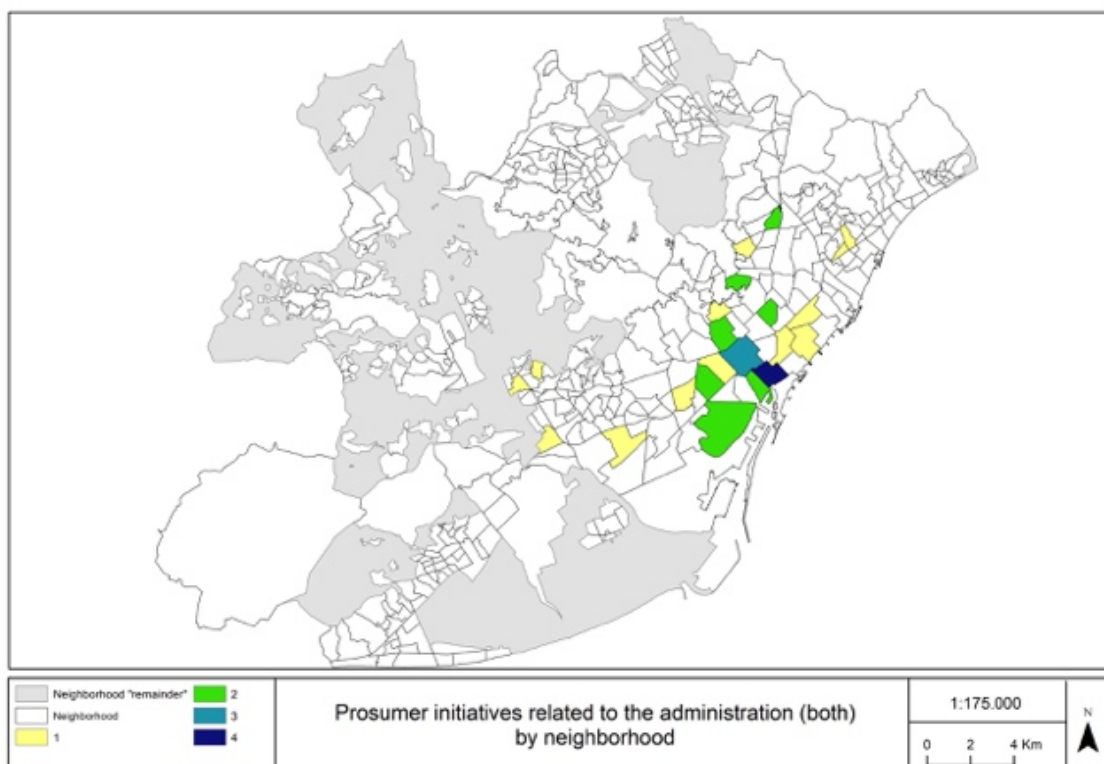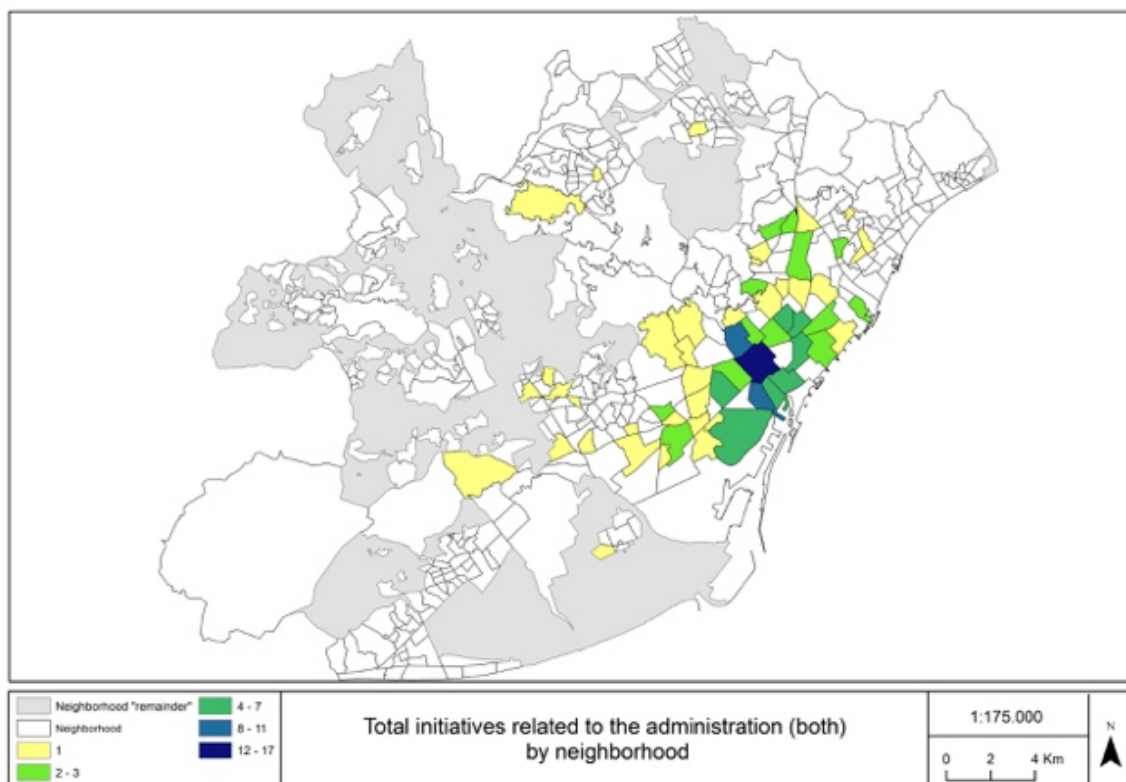
Map 20 & 21. Concentration of total and prosumer initiatives related to both local and supra-local public administration.

Finally, the same spatial pattern is found when looking at the total and prosumer initiatives in relation to supra-local (regional or state) public administration, with the highest concentration in the Barcelona neighbourhood of the Pedralbes, within Les Corts, statistically one of the wealthiest neighbourhoods in the city.
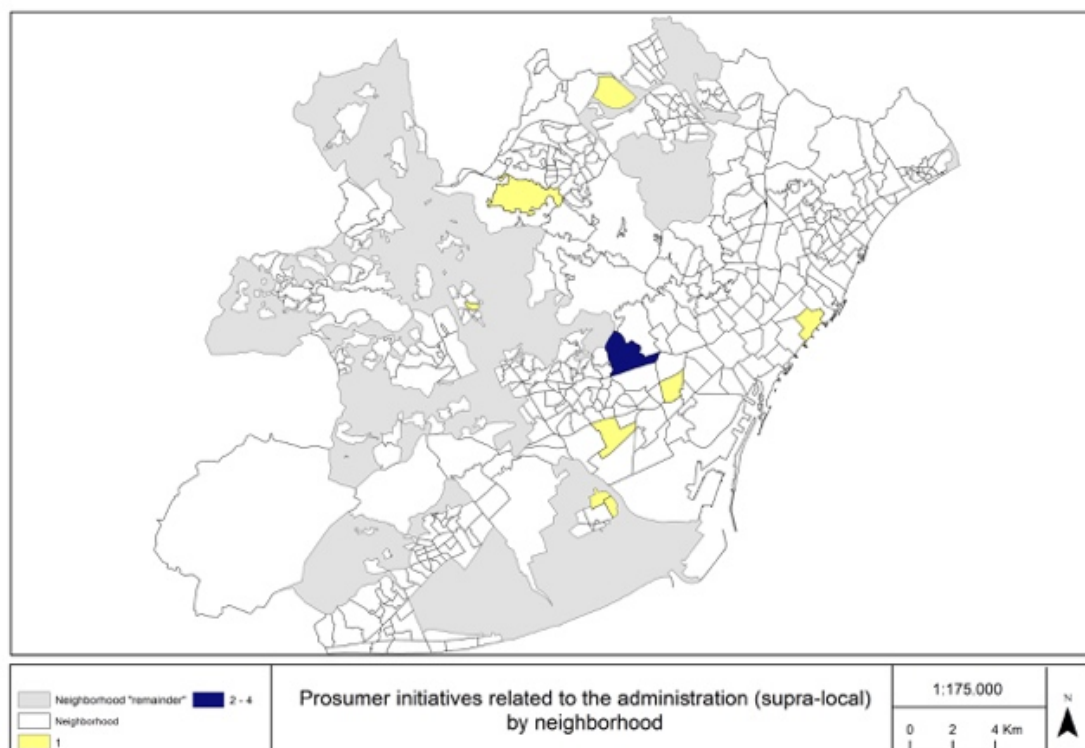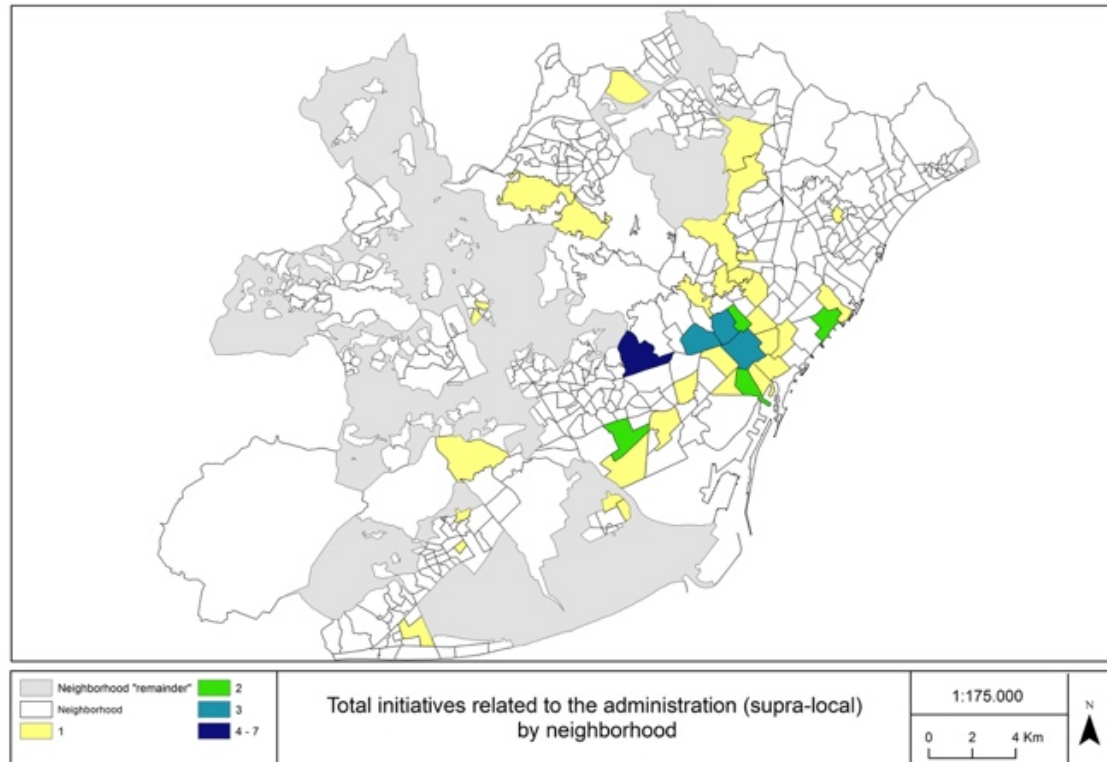
Maps 22 & 23. Concentration of total and prosumer initiatives related to supra-local public administration.

The spatial distribution of relationship to different scales of public administration offers merely a snapshot of the often complex relationship between commoning initiatives and the state. The multiple reasons for these relations and their territorial distribution necessarily warrant a more in-depth, qualitative analysis of path-dependencies and specific histories. In terms of the relationship between density and territorial development, an overview approach can only offer limited insights. As discussed by Anton-Alonso et al (2017), a fundamental variable to interpret the degree of development and economic growth is related to 'institutional density'. According to this perspective, the economic success of a territory can be seen as directly dependent on the presence or absence of institutions.

However, numbers alone are not sufficient and there is a need to understand their efficacy:

> what truly benefits economic development is the role that they play in relation to economic activities and how they promote, maintain or weaken it. Therefore, this perspective is more focused on the quality, rather than the quantity, of institutions in territory (Anton-Alonso et al, 2017, p.14).

Such an approach, however, cannot be developed solely by looking at the quantitative presence or absence of initiatives. Moreover, it cannot understand initiatives as isolated instances: rather, a network approach to their operations, rootedness, and interconnectivity is fundamental to explain their emergence and maintenance over time, as well as their social and economic impact. This is what we address in the Case Studies section, which will examine in more detail two territories and the interrelationship between institutions, through network analysis and in-depth qualitative approach.

3.2 Cluster analysis

We carried the cluster analysis based on 3 of the 8 main variables of the database. These variables were the maximum number of variables we could include without having too many missing data. The variables are "prosumer" (yes/no), "alternative" (welfare state/market/both), and "economic sector" (7 categories).

The analysis resulted in 6 clusters. The representativeness of the clusters ranges between 11% of the database (see cluster 2 in Graph 27) and 21% (cluster 1). According to the analysis, there are two relatively clear groups of clusters depending on whether the initiatives are prosumer vs. non-prosumer. Clusters 1 and 4 are prosumer and cluster 2 and 5 are not. Then there are clusters 6 and 3, which are half-way prosumer (48% prosumer cases in cluster 6) and unidentified (100% missing data in cluster 3). The alignment between the prosumer characteristic and economic sector is only partial. This is illustrated if we focus on the most frequent economic sectors. On the one hand, initiatives corresponding to the agro-ecology/energy/environment sector (25% of the full dataset), tend to be prosumer. This is illustrated by cluster 4: all the initiatives in this cluster are prosumer and 64% of them belong to the ecology/energy/environment sector. Similarly, there is the counseling/finances/other sector initiatives, which tend to be not prosumer. This is illustrated by cluster 5, which includes a 98% of non-prosumer initiatives and around 40% of counseling/finances/other initiatives.

On the other hand, initiatives corresponding to the culture/leisure sector (25% of the full dataset) are both prosumer and not prosumer. This is illustrated by clusters 1 and 2. In both clusters the presence of culture/leisure initiatives is relatively dominant (around 40%); however, all of them are prosumer in cluster 1 and non-prosumer in cluster 3. Moreover, there is cluster 3, which includes up to 63% of culture/leisure initiatives but is undefined with regard to the prosumer variable.

Finally, the analysis shows that the alternative to state/market variable is not very discriminant. Three of the 6 clusters tend to be dominated by initiatives that are alternative to either markets and/or the state; and two are both alternative to the state and markets. Only cluster 3 is ambiguous with regard to this variable (53% of the initiatives are alternative to markets).

Importancia de la característica
■ 1,0 ■ 0,9 ■ 0,8 □ 0,7 □ 0,6

Conglomerar	6	1	5	4	3	2
Tamaño	20,7% (241)	20,4% (237)	18,5% (215)	15,0% (174)	14,2% (165)	11,2% (130)
Funciones	Naturale_1 Alternativa al Estado de bienestar (84,6%)	Naturale_1 Alternativa al Estado y al mercado (100,0%)	Naturale_1 Alternativa al mercado (88,4%)	Naturale_1 Alternativa al mercado (97,1%)	Naturale_1 Alternativa al mercado (53,3%)	Naturale_1 Alternativa al Estado y al mercado (100,0%)
	Prosumer_1 No (47,7%)	Prosumer_1 Si (100,0%)	Prosumer_1 No (97,7%)	Prosumer_1 Si (100,0%)	Prosumer_1 s/d (100,0%)	Prosumer_1 No (98,5%)
	Categori_2 Salud y apoyo mútuo (44,4%)	Categori_2 Cultura y ocio (42,2%)	Categori_2 Asesoramiento, finanzas sociales y otros productos …	Categori_2 Agroecología, energía y medio ambiente (63,8%)	Categori_2 Cultura y ocio (63,0%)	Categori_2 Cultura y ocio (36,2%)

Graph 27. Cluster analysis results

We can also rank the clusters based on whether they align with our understanding of "commons initiatives". Cluster 1 would be the first in the ranking, including 100% of prosumer initiatives and 100% of alternative to market and state initiatives. Cluster 4 would be next, including 100% of prosumer initiatives and 97% of initiatives that are alternative to markets. Then there would be clusters 2 and 6. Cluster 2 is dominated by non-prosumer initiatives that are nevertheless alternative to the state and markets; and cluster 6 is populated by a decent amount of prosumer initiatives that constitute, however, only alternative to markets. Then there would be cluster 5, including non-prosumer alternatives that are alternatives to markets. Finally, there is cluster 5, which is rather undefined.

Commons Clusters (1, 3 and 4)

A detailed look at the clusters that approach our understanding of "commons initiatives" the closest (clusters 1 and 4) helps to further understand the groupings. First, clusters 1 and 3 are more diverse in economic sectors than cluster 4. Cluster 4, weights almost uniquely on the agroecology/energy/environment sector. Alternatively, cluster 1 is dominated by culture/leisure initiatives, but it also includes a significant amount of initiatives from the agroecology/energy/environment, housing and health/care sectors. This helps to explain that almost all the cluster 4 initiatives constitute alternatives just to markets and not both to markets and the state, like in cluster 1.
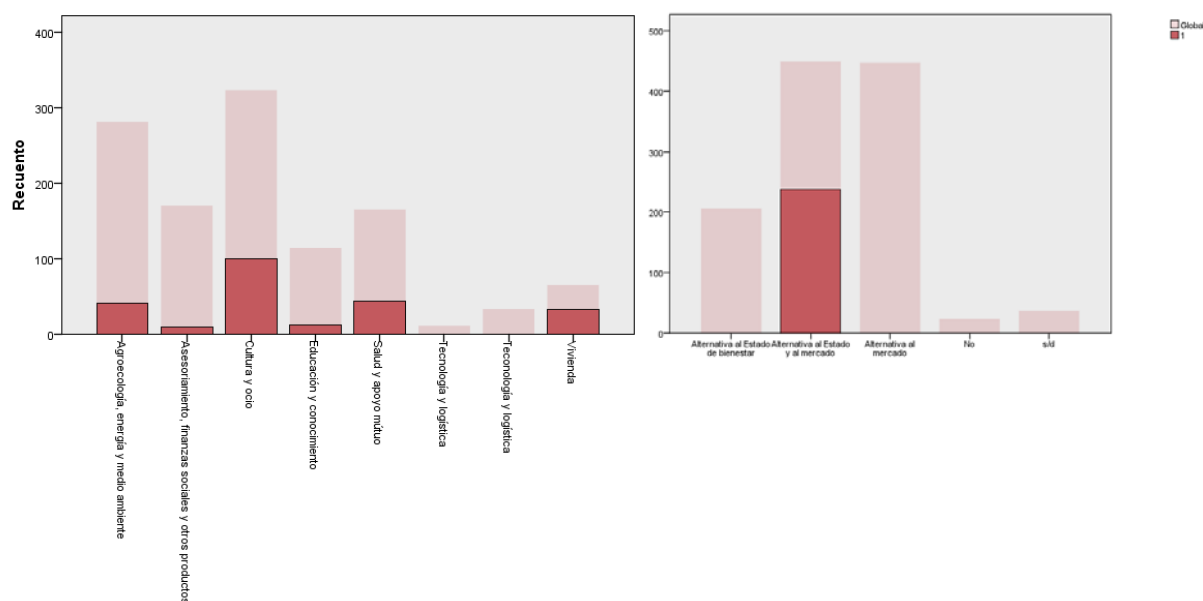
Graph 28. Cluster 1 initiatives across sectors and the "alternative" variable.
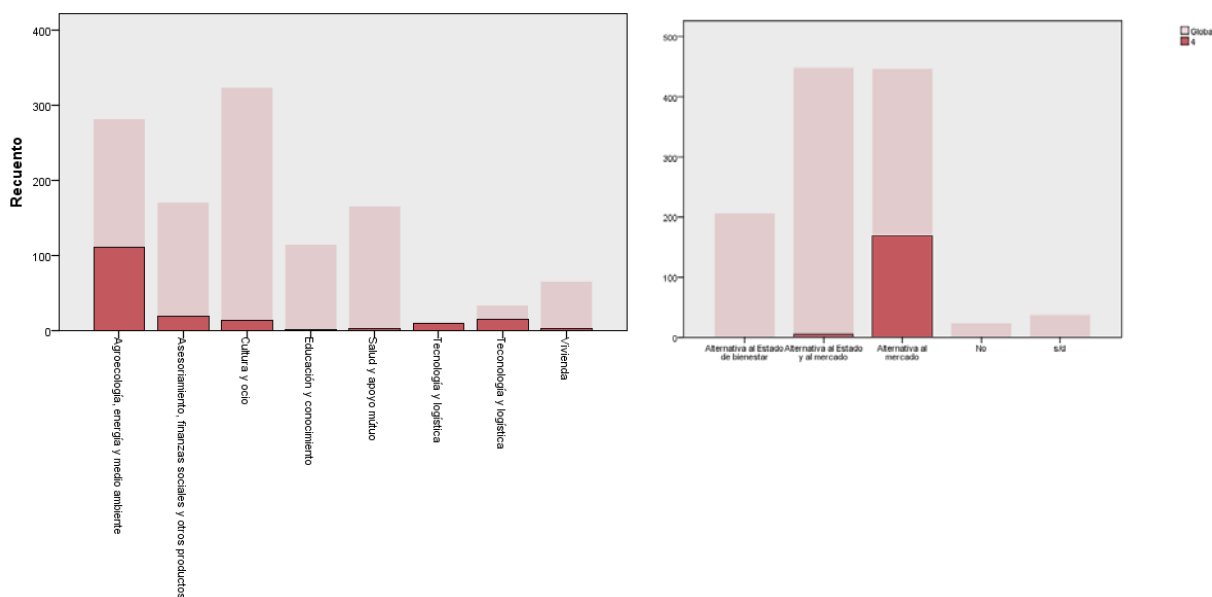
Graph 29. Cluster 4 initiatives across sectors and the "alternative" variable.

Cluster 1/3 (culture/leisure sector):
"The **Casal Popular Tres Lirios** is a space built from and for the youth of the Gracia district. In 2014, an evident need of the Gracia youth is born: the lack of self-managed spaces to build ourselves autonomously, to empower ourselves as free people and to create common structures far from the impositions of capital and patriarchy. We understand the house as an alternative meeting and leisure point, but also as a project built from respect, coexistence with the neighborhood and neighbors. The house is part of the neighborhood, and as such the people who make it up come from many different projects and spaces that are carried out in Gracia. That is why we cannot understand the work of the house without a job within the same network of the neighborhood, with open activities as well as active participation in the various problems and social struggles of the neighborhood. The Casal is presented as a space built from a perspective of respect, where no person or group feels excluded or is a victim of any type of aggression or discrimination."

https://cptreslliris.wixsite.com/cptreslliris

Cluster 4 (agroecology/energy/environment sector)
"The **El Llevat ecological consumer cooperative** was founded in 2009 in the district of Nou Barris and is currently made up of more than ninety domestic units throughout Barcelona. We have 3 basket collection points located in Nou Barris, Sant Andreu and the Villa de Gracia. Our project aims to bring ecological, fair trade and local products to the people of Barcelona. We also want to promote responsible, critical, local consumption, with decent social and labour criteria and the dissemination of environmental awareness. We are a self-employment project, we promote cooperativism and we work in and for alternative consumption network in Barcelona."

http://www.llevat.org/

Box 1. Typical Examples of *Commons Cluster.*

Non-commons cluster (cluster 5)

The farthest cluster from our understanding of commons initiatives is cluster 5. This is a relatively diverse cluster in terms of sector. Although the counseling/finances/other sector dominates, the agroecology/energy/environment, culture/leisure, and technology/logistics sectors are also important. This cluster questions our definition of alternative to market. As further illustrated below (see box), it is questionable whether some of these initiatives constitute a real alternative to markets or are just new market niches.

"Bateau Lune is more than a toy store ..., for some it is like the cave of Alibaba, for others a magical place and for us a world full of imagination that we have created with much effort and illusion since 2003. We select natural wood toys, educational toys, original and traditional, both for children and adults. Our toys come from all over the world and have been manufactured with high quality, non-toxic, noble materials and some are ecological. We also organize free family activities/workshops in the Plaza de la Virreina itself."

https://www.bateaulune.com/nosotros/

"Affectio Group is the expression of the bond between the more than 30 professionals of Integral® and Idea Iuris®, based on mutual trust and their desire to unite their proven solvency and experience. Affectio Group deploys the power of two independent companies and three fully coordinated divisions with a single objective: to provide integrated and quality services to people and organizations."

http://www.affectio.es/ca/

"Since 1993, **Regla de 3** SCCL we set ourselves the goal to be a computer service company within the Apple environment. For 25 years we have been expanding and evolving our technological knowledge, as well as our relationship with other specialized sector agents, leading the solutions offered to each project. Our differential fact, as a cooperative, is that most of the team is a working partner, achieving a greater degree of involvement, which has allowed us to offer our customers a long term monitoring, collaborating and being part of, through the continuity plans and the decision making"

https://www.reglade3.com/nosotros/

Box 2. Typical Examples of *Non-Commons Cluster* (Cluster 5, technology/logistics sector)
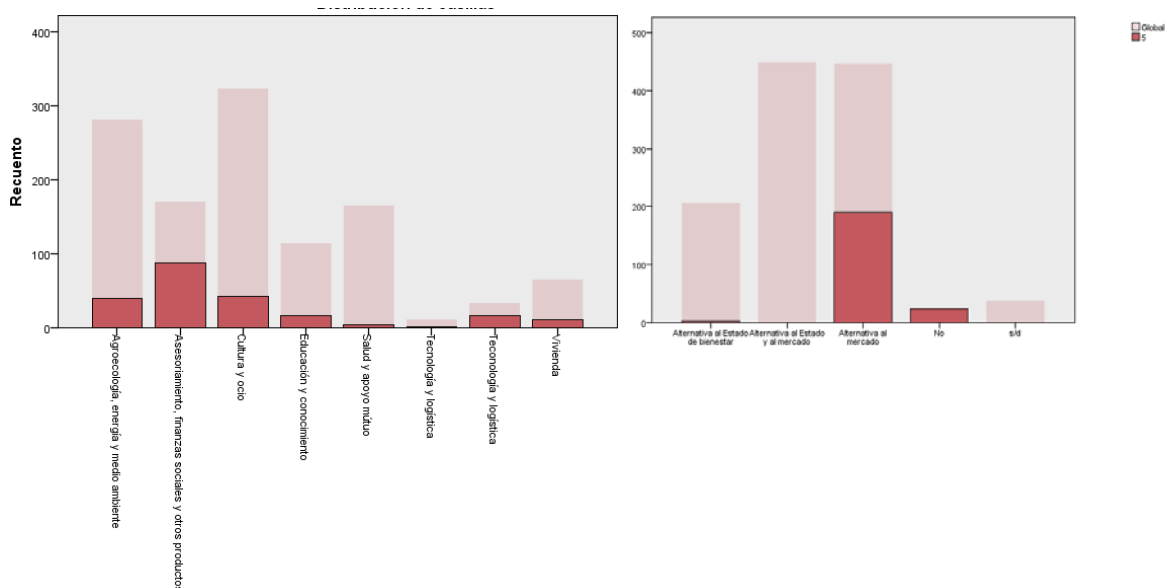
Graph 30. Cluster 5 initiatives across sectors and the "alternative" variable.

Hybrid clusters (clusters 2 and 6)

Hybrids are worth exploring to the extent that they illustrate the diversity of initiatives at stake and the conceptual consistency of some of our variables of analysis. A detailed comparison of clusters 1 (commons) and 2 (hybrid) is revealing in this regard. These are very similar clusters as both include mostly initiatives from the culture/leisure sector and that are alternatives to the state and markets. The clusters differ, however, in the prosumer variable. Cluster 2 initiatives are not prosumer and quite spread across sectors. They
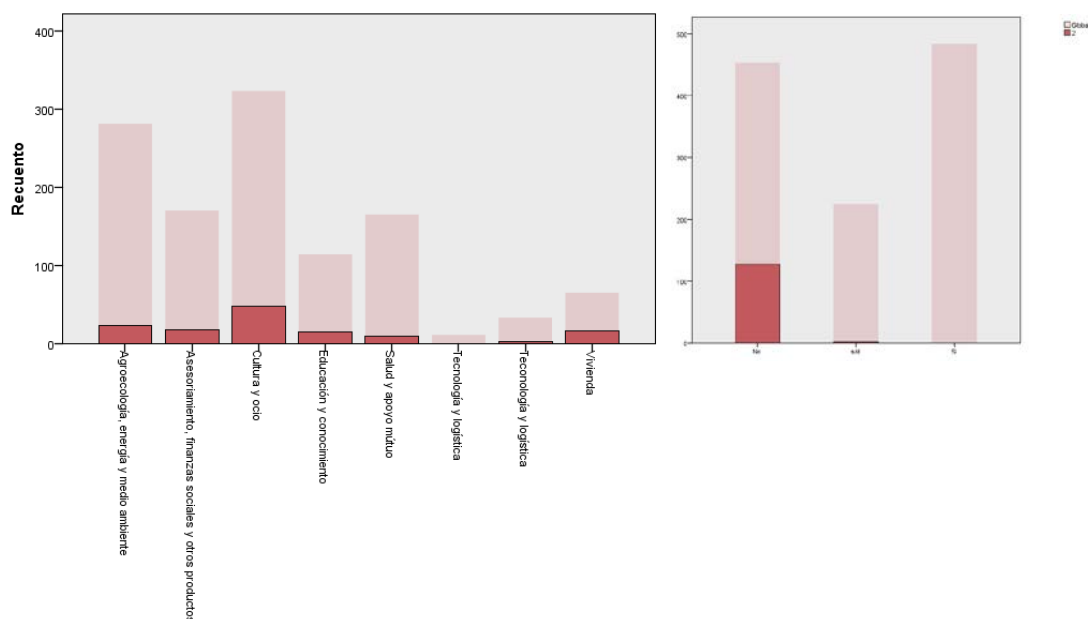
Graph 31. Distribution of cluster 2 initiatives across economic sectors and prosumer variable

Cluster 6 is the second of the hybrid clusters. Although all initiatives in this cluster are alternative to markets and the state, some of them are prosumer while others are not. The distinctive feature of this cluster is the weight of initiatives belonging to the health/care sector and also to the education/knowledge sector.
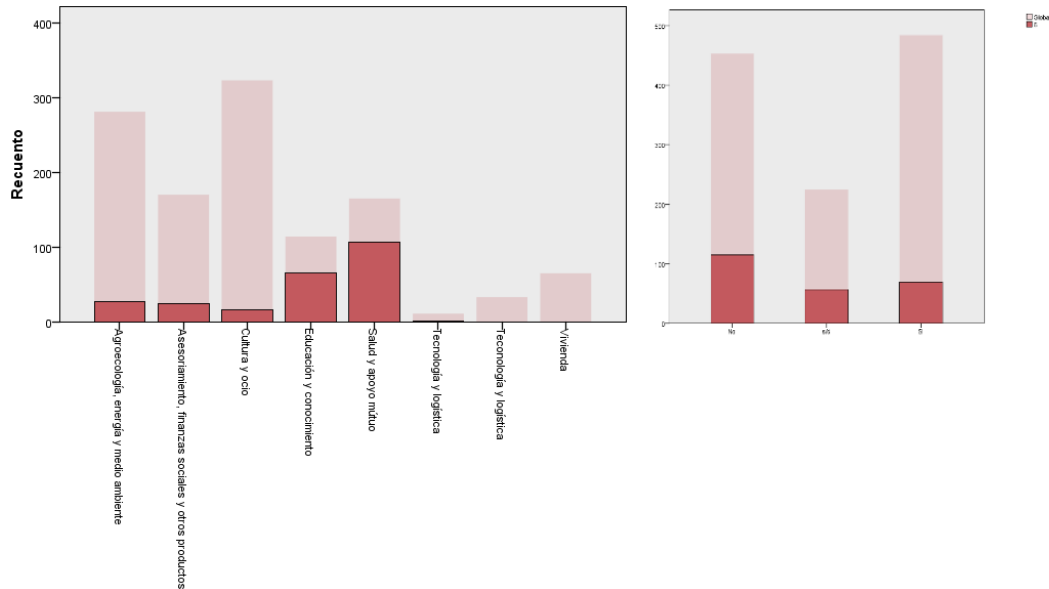
Graph 32. Distribution of initiatives across prosumer variable and economic sectors (cluster

Cluster 2 (Culture/leisure sector)

"**La Seca** is a historic building located in Flassaders street in the Born district, a stone's throw from the Picasso Museum and Santa María del Mar. From the 14th to the 19th century it housed the Royal Mint of the Crown of Aragon in the city of Barcelona. A few years ago, the City Council acquired these facilities and in 2009 it launched a tender for the concession of their exploitation as a cultural facility. The Brossa Espacio Escénico team, which was awarded the La Seca concession, opened its doors on 24 September 2011. It is a new space that has, among other services and offers, two rooms with different formats for stage performances, an exhibition space, a bar and a rehearsal room. This new cultural facility is part of the network of Factories of Creation, a program of the Institute of Culture of Barcelona to promote cultural creation and production."

http://www.laseca.cat/

Cluster 6 (health/care sector, prosumer)

"The **El Monstre de Paper** was born in 2010, when a group of families with similar concerns about respectful parenting in the early years came together to create an Association: "Association for the Shared Parenting of the Paper Monster". We are a small project of Poble Sec which over the years has been growing and maturing to this day. We are part of the portal "step by step, your map of solidarity economy because we try to manage our resources in a sustainable way. We currently belong to the Xell as a parenting group (a platform that supports book education in Catalonia). The Paper Monster is formed by two educators and 11 or 12 families, depending on the age of the children, which can vary from 8 months to 3 years. So in the play group we have, a reduced number of infants, 5 or 6 per educator (low ratio).."

https://elmonstredepaper.com/

Cluster 6 (health/care sector, non-prosumer)

"**AUPA** is part of the Soccos Association, a non-profit organization, in force since 2013. AUPA is a project that aims to promote and accompany the growth and development of families through activities and experiences focused on expressive and artistic languages. Because creating is a natural and inherent act of the human being. Because to the extent that it is easier for us to create, we grow. AUPA offers proposals so that all family members can experience creativity and rediscover themselves through play."

http://www.aupa.cat/aupa/

Box 3. Typical Examples of *Hybrids Cluster.*

3.3 Case Studies

3.3.1   Introduction to case studies and initiatives

As hinted in the methods section, we selected two neighborhoods among those displaying the largest amount of prosumer initiatives in relation to the population (top 20). Specifically, we choose one neighborhood outside the city of Barcelona and one inside, both of which had similar profiles in terms of census data (see Table 7 below). The two chosen neighborhoods were:

- **El Parc i la Llacuna del Poblenou, Barcelona,** which includes 20 citizen initiatives, 9 of which are prosumer.

- **Centre Est, en Sant Cugat del Vallès**, including 8 citizen initiatives, 6 of which are prosumer.
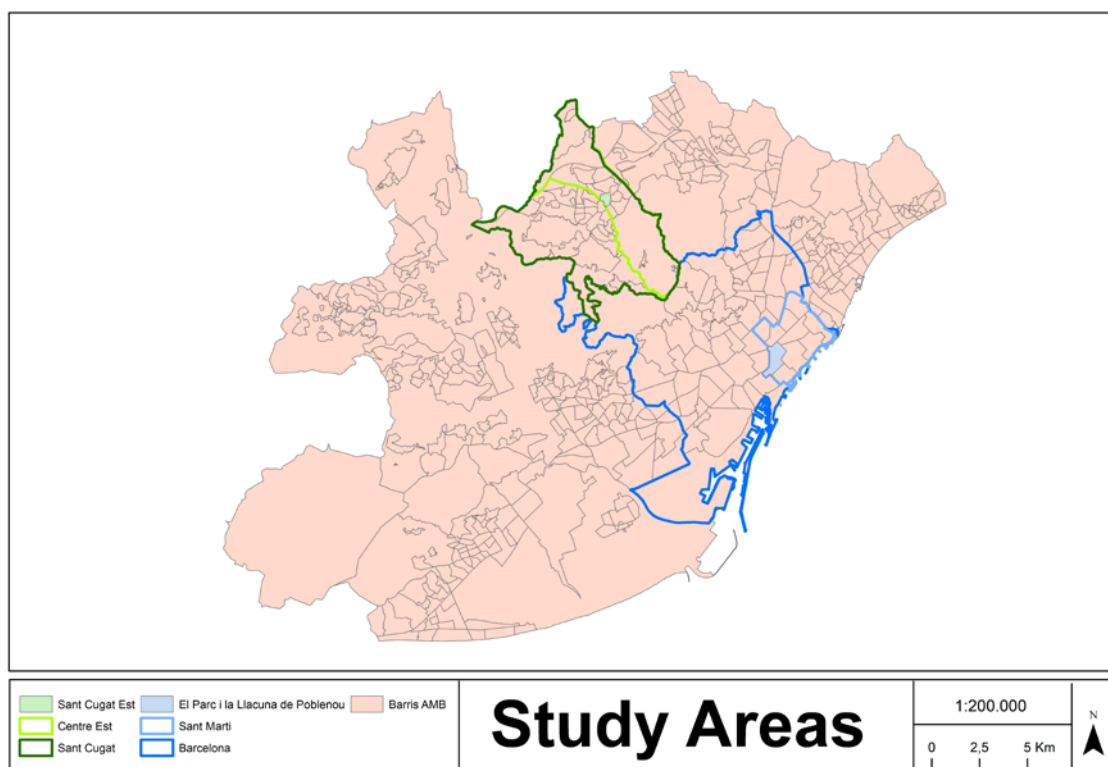
Map 24. Localization of the neighborhoods.

	El Parc i la Llacuna del Poblenou		Centre Est Sant Cugat del Valles	
Socio-demographics	Number	Percentage	Number	Percentage
Population	14,150		15,740	
Women	7,744	55%	6,616	42%
Men	7,798	55%	7,535	48%
0 to 14-year-old	1,624	11%	2,924	19%
15 to 64-year-old	7,622	54%	10,606	67%
Over 65-year-old	2,489	18%	2,214	14%

Born outside of Spain	2,650	19%	2,424	15%
Secondary school completed	3,472	25%	8,720	55%
University completed	2,986	21%	5,544	35%
Unemployed	2,688	19%	1,508	10%
Households	14,600		5,598	
Three-people households	4,578	31%	2,822	50%
Prosumer features				
Legal form	7 Associations 2 Informal groups		2 Associations 4 Informal groups 1 Cooperative	
Production	7 Services 2 Knowledge		6 Services 1 Good	
Internal democracy	9 Advanced		4 Advanced 2 Basic 1 None	
External/internal transformation	7/7 Socio-environmental 2/2 Social		5/4 Socio-environmental 1/2 Social	
Relationship with Public Administration	7 Local 2 None		5 Local 1 Local & Supra-local 1 None	

Table 7. Basic socio-demographic characteristics and prosumer features of case studies.

Case Study 1: Center-east, Sant Cugat del Valles

Municipality of the Vallès Occidental region extends from the north-western slopes of the Collserola mountain range to the beginning of the Pre-coastal Depression. The municipality includes the semi-autonomous municipal entity of Valldoreix, and five districts, each with a neighborhood council: Center East, Center West, Mirasol, La Floresta and Les Planes.
The Center-East district is contiguous to the city of Sant Cugat and is not perceived as a distinct district. It is located in the historical center of the municipality and has a great deal of commercial and associative activity.

Name	Description	Starting Date	Members	Category
El Cabàs	Consumers' cooperative	2003	800 family units, near 200 people	Agroecology/energy/environment
Cal Temerari	Cultural equipment	2015	270	Culture/leisure

Grup de Lectura d'Ecologia Política	Reading group	2016	30	Education and knowledge
La Civada	Consumers' cooperative	2008	23 family units, near 70 people	Agroecology/energy/environment
El Cugatenc	Digital newspaper	2015	13	Culture/leisure
XES Sant Cugat	Network of initiatives from social and solidarity economy	2015	15	Consulting and ethical financing
4Pins Cohabitatge	Co-housing	2019	45	Housing
Hora Bruixa	Feminist group	2013	20	Health and mutual support
Sindicat de Llogateres de Sant Cugat	Tenant's union	2017	10	Housing

Table 8. Overview of prosumer initiatives in Sant Cugat Centre-East case study.

Out of the 9 prosumer initiatives of the Center-East district[10], dates from before the 2008 economic crisis (in 2003), and 5 had their origins in between 2013 and 2016. Sector-wise, the initiatives are quite diverse. Two of them belong to the culture/leisure sector, 2 to the agroecology/energy/environment sector, two to the health/care sector and the rest to the education/knowledge, housing and counseling/finances sectors (see Table 8 for other details).

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[10] According to our database the Center East district of Sant Cugat had 8 citizen initiatives, 6 of them being prosumer. The fieldwork, however, revealed that some of the initiatives had disappeared, other had evolved, and new had emerged.

"El Cabas is a consumer association for organic products that has been operating since 2006. It currently consists of about 100 units of consumption that collect the basket Wednesday and Thursday between 17 and 21 h. The baskets are open, this means that each consumption unit can choose which products it wants to consume (it is not a closed basket). Once a year we hold an assembly in which we all talk, debate and decide everything that affects us as members of the association".

https://www.elcabasecologic.cat/qui-som

"Cal Temerari" is a cultural, social and cooperative citizen's equipment. It aims to promote participation and encourage social and transformative initiatives in Sant Cugat... As a citizen's team, it aims to welcome and promote any project or initiative that falls within one of these 6 work areas: Gender equality, Sustainability for diversity, Associative fabric and mutual support, Social and solidary economy, Popular and participatory culture, Social and community intervention."

http://caltemerari.cat/

"La Civada is are a consumer group located in Sant Cugat del Vallès. We are self-managed with the aim of accessing ecological products, of proximity and without intermediaries. Every week we meet at our premises to pick up a basket of vegetables, as well as other products."

https://civada.wordpress.com/

"elCugatenc is an assembly-based media in Sant Cugat del Vallès that is committed to critical and transformative journalism, questioning the system and giving voice to alternatives. elCugatenc publishes online content daily and two paper monographs each year. In order to maintain journalistic independence, elCugatenc is financed by subscriptions and advertising based on ethical criteria."

https://elcugatenc.cat/

"The Sant Cugat Solidarity Economy Network is a cross-cutting citizens' platform that aims to disseminate, raise awareness and promote a more equitable, democratic, fair and sustainable economy. It is made up of solidarity economy projects in various legal forms as well as entities that work for the development of this form of economy. At the same time, individuals also participate. We meet regularly at the Sincrocoop of the cultural association, the Santcugatenc space of the social economy."

http://xes.cat/sant-cugat/

Hora Bruixa. "We are a group of women. We define ourselves as feminists and revolutionaries and our main objective is the struggle against the patriarchal system by creating a space of formation and empowerment, to learn to be ourselves without prejudice or judgment, while making visible all the oppression and violence that women constantly suffer in this society."

https://es-es.facebook.com/pg/Hora-Bruixa-200353946816689/about/?ref=page_internal

Box 4. Descriptions of Commons initiatives in Sant Cugat Centre-East case.

Case study 2: Parc i La Llacuna del Poble Nou

The Parc I la Llacuna del Poblenou (Poblenou-Llacuna) neighbourhood is part of the Sant Martì District, the second most populated district in Barcelona, after the Eixample, with 237.000 inhabitants which represent the 15% of the city population. This District comprises some of the most diverse neighborhoods in terms of income, such as the *Besos I Maresme* which is one of the poorest neighborhood, and *Vila Olimpica* which is one of the richest one. The neighborhood is also diverse in terms of community activity. The *Clot* and *Poblenou* neighbourhoods which have a long tradition of community life and the *Besos* and la *Vila Olimpica* one which do not.

The Parc I la Llacuna del Poblenou is located between *Poblenou* and la *Vila Olimpica*. The income per capita is slightly lower than the Barcelona average. It can be considered a neighbourhood "in transition". One part of it suffered the urban transformation caused by the "22@" Urbanization Plan around *Placa de les Glòries* and the *Torre Agbar*. Most technological and economical activities are concentrated in this area which does not have community and commercial life. The other part of the neighborhood, has not gone through any urban transformation and does not have neither relevant economic activities or commercial or community life. This is why it is perceived by its residents as a "no man's land" and a "forgotten area" by the public administrations.

Name	Description	Starting Date	Members	Category
Cooperativa Pam a Pam	Consumers' cooperative	2011	21	Agroecology/energy/environment
Macus	Craftsmen's workshop	2012	19	Goods production/sales
Connecthort	Community garden	2011	10-15	Agroecology/energy/environment
Huerta Indignat 6	Community garden	2014	12	Agroecology/energy/environment
Passatge Trullas	Community public space	2018	15	Culture/leisure
Nodo guifi UPF	Telecommunication network	2014	3	Technology/logistic sectors
Superilla residents'organisation	Community organisation	2017	50	Agroecology/energy/environment

Table 9. Overview of prosumer initiatives of La Llacuna i Poble Nou case study.

All of the 7 prosumer initiatives of the neighborhood date from after 2011. Sector-wise, the initiatives are a bit less diverse than in the Sant Cugat case. Four of them belong to the agroecology/energy/environment sector, and the rest to the culture/leisure, goods production and sales and technology/logistic sectors (see Table 9 for other details).

Pam a Pam "is a consumer cooperative that aims to change the relationship of its members with the planet, reduce energy consumption and strengthen the relationship between them. They are born in 2011, encouraged by the experiences of other groups in the environment and with the desire to promote their own project of responsible consumption: fair trade products, organic farming and proximity, and minimum energy consumption.".

https://cooppamapam.wordpress.com/

MACUS is a "creation, manufacturing and production laboratory. We are an assembly space for crafts 1.0, 2.0, and 3.0…. Macus és un PAIC (Projecte Autònom d'Iniciativa Colectivizada), dins de la Cooperativa Integral Catalana (CIC), on intentem ajudarnos entre totes a ser el més autosuficients possible en tots els àmbits del nostre dia a dia, partint de l'autogestió, l'autoorganització i la democràcia directa."

https://www.facebook.com/M4CUS/

"**ConnectHORT** is a space where Permaculture can be known, promoting coexistence and social cohesion in the Poblenou neighbourhood... The project consists of the creation of a space, in which different areas have a place; areas such as education (involvement of schools, construction of common ideas), culture (exchange markets, fresh cinema), production (community garden), sports (football pitches, space for skating) and art or recycling (repair workshops, use of recycled material to create furniture), always working along the lines of sustainability".

https://www.facebook.com/ConnectHortBarcelona/

The **Huerta Indignada #6** is a "neighborhood and community garden in the Bogatell-Trullàs neighborhood... Social and community project"

https://www.facebook.com/Poble9Hort6/

The **Colectivo Superilla** is "a heterogeneous group of people linked to the Superilla del Poblenou, who have come together with the common goal of actively participating in this co-creation project from our needs and desires as users. We are an open and inclusive group with different ages, origins, interests and needs and we are united by a common vision of imagining a more social and healthier city, where the public space that the car has occupied is recovered by people. We want to work positively, contributing with improvement proposals to this specific superb space, so that it becomes a space that we all feel as our own."

https://superillap9.wordpress.com/

"**Guifi**·net is a bottom-up, citizenship-driven technological, social and economic project with the objective of creating a free, open and neutral telecommunications network based on a commons model. The development of this common-pool infrastructure eases the access to quality, fair-priced telecommunications in general and broadband Internet connections in particular, for everybody. Moreover, it generates a model for collaborative economic activity based on proximity and sustainability."

https://guifi.net/en/what_is_guifinet

Box 5. Descriptions of Commons initiatives in Parc i La Llacuna Poble Nou case

3.3.2 Territorial Impact

The interviews also shed light on the territorial impact of prosumer initiatives, which we can classify into economic, social and environmental dimensions.

Economic impact

The most prominent economic impact is the promotion and development of the social and cooperative economic model within the neighbors/districts. This is particularly clear in the case of Sant Cugat. A paradigmatic example here is the collaboration between the XES and the local government to promote cooperative housing with the 4Pins association. XES is a Catalan organization composed by a network of social and solidarity economic initiatives divided into local territory-based network with the aim to foster the development of the social and solidarity economic model.

In the Poblenou-Llacuna case, the impact is much less prominent, but interviewees reported that it probably has to do with the relatively newness of the initiatives in this neighborhood and their isolation from initiatives from other neighborhoods. There has indeed been an important development of social and solidarity economic activities at the San Marti District scale (higher scale) in the last years. However, these have distributed quite unevenly across the neighborhoods. Most of them are concentrated in neighborhoods with a workers' and community tradition, such as *El Clot* and the *Poblenou* neighborhoods. Unfortunately, the initiatives have not yet managed to have an impact beyond the neighborhood scale, which limits impact spill-overs .

Indeed, improving and homogenizing the impact of the social and solidarity cooperative economy is one of the objectives of the local public administration. In Barcelona, the first "Pla d'impuls de l'Economia. Social i Solidària" was launched in 2016 with the aim to strengthen existing citizen initiatives in the city and encourage the set-up of new ones through training programs and access to funds. At the District level, the creation of local plans should allow to territorialize the city plan and adapt it to local contexts and needs. In the case of the Sant Marti District, the local social and solidarity economic plan is envisaged in the 2018-2022 Economic Development Plan, but it has still not been adopted.

Related to the above is **awareness raising about alternative economic models** carried by the initiatives not only among the citizens but also with public authorities. The representatives of the *XES* and *Macus* initiatives were very clear about this and reported recent efforts to strengthen such impact via collaboration ventures with the Public Administration.

Another important impact is the **promotion of other initiatives and networking**. Two examples are the *Taula Eix Pere IV* or *Cal Temerari*. The *Taula Eix Pere IV* is a citizen platform formed by neighbours' organisations, cultural organisations and cooperative initiatives of the Sant Marti District gathered with the aim of promoting the social, cultural and economic development of the Eix Pere IV. These two initiatives facilitate networking, and host meetings among other initiatives and manage a space where other initiatives can develop their activities. Less

paradigmatic but still important examples are the *Ateneus Cooperatius* and the *Centres Civics.* The relevance of these two initiatives is underlined by one of the interviewees:

> The "Taula Eix pear IV quart" acts as an amplifier of efforts. So, only by collaborating with the "Taula" you already reach many places. And with the "Ateneus Cooperativos" is almost the same. By collaborating with them, this Wednesday we go to a meeting of feminist economies in San Roque and we have gone to training related to the subject of conflict resolution.
> (Macus, Poblenou-Llacuna)

Finally, interviewees reported **limited impact in terms on employment**. Job creation by initiatives that develop economic activities (*Cal Temerari*, *El Cabàs*, *El Cugatenc*, *Macus*) is limited, and rather insignificant compared with the population in the neighborhood. That said the few jobs that are created are very much valued by the leaders of the initiatives and the employees themselves. This was well-explained by one of the interviewees:

> "When I try to measure this (the employment impact), I see it extremely modest. Only twenty-two people work here, and thousands live in the neighborhood. So, the impact that Macus has at this level ... I don't give it value ... But, obviously, Macus has changed the life to the people that are here. I do not have any doubt."
> (Macus, Poblenou-Llacuna)

Social impact

Social impacts are also diverse. Many initiatives contribute to **social cohesion** via the organization of activities that are open to the community, such as training workshops organized by *Macus* or *Hora Bruixa*. *Macus*, for example, has organised free workshops for the local community, on upcycling, 3D printing or cabinet-making. Moreover, these initiatives also host meetings of other groups. That is the case of a number of urban garden groups such as Connecthort, Hort Indignat 6 and the Sperilla.

The surveyed initiatives also work to **integrate vulnerable groups**, such as immigrants and unemployed people. That is the case in all the urban gardens within the surveyed neighborhoods, where vulnerable people are invited to participate all alike in the maintenance tasks. That is also clearly the case in initiatives like *Cal Temerari*, which offers school support to kids and teenagers from all backgrounds.

Also importantly, there is the **promotion of social and political awareness** and engagement. In some cases, this is part of the very mission of the initiatives, like in the case of *Cugatenc* and *Hora Bruixa* in Sant Cugat. In other cases, awareness raising is not the main goal of the initiatives, but it is an indirect effect of the participation of people in the activities organized by the initiatives and the socialization process that comes with it. This is the case of many consumers' group and urban gardens, whereby members slowly gain awareness about sustainable consumption and organic farming.

Finally, there is **social learning**. Most of the initiatives involve relatively democratic decision-making processes. People who are not familiarized with deliberation and collective decision making get acquainted with it, even if in some cases such learning process happens only slowly. This is for example the case of *Macus*, as explained by the interviewee:

"The people who arrive here do not know what a general assembly is. And now, everyone knows what an assembly is. Everyone knows what active listening is. Everyone knows what respect is for people, in general, less on WhatsApp. Respect in WhatsApp is costing us. But we are managing to change it".

Environmental impact

The two main environmental impacts are rather indirect. First, the initiatives that produce, distribute or sell products, like the food consumption cooperatives and groups, contribute to the development of a value chain that builds on local products and agricultural production processes that are produced locally and are environmentally friendly.

Then, almost all the initiatives are engaged in environmental awareness raising among their members, although there is quite some variation among the initiatives. There are cases where environmental conservation practices are limited to recycling, like in the case of *Macus*; and there are other cases, like in urban gardens or food consumption cooperatives/groups, where awareness activities include a number of sustainable production and consumption practices and the promotion of agro-ecology. Also, some initiatives are engaged in dissemination activities. That is the case of *Connecthort*, which launched a composting project in the neighborhood, or the case of *Cabas*, a consumer cooperative, which is developing an environmental education project in public schools in Sant Cugat.

Throughout the data collection process, we became aware of alternative approaches to measure territorial impact that one may want to bear in mind for future endeavors. The social and solidarity sector in Catalonia, for instance, has recently developed the Community Balance (Balanç comunitari[11]), a tool of accountability and continuous improvement of the community management of facilities or public-common spaces. The first version of the tool was developed during 2018 by the Network of Community Spaces (XEC), a team of experts in community management, the Citizen Heritage Program of the Barcelona City Council and the *XES*.

During the past decade, XES has also promoted the Social Balance (Balanç Social[12]), a platform that helps measuring the accountability and impact of Social and Solidarity Economy Initiatives. More recently, the platform is being fostered with the campaing "Show your heart".

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[11] http://xes.cat/2018/11/29/el-balanc-comunitari-un-nou-itinerari-que-enriqueix-el-balanc-social/
[12] https://ensenyaelcor.org/bs/login#!login

Similarly, Barcelona Deputation published in 2017 a guide for helping local bodies measuring the Social and Solidarity Economy (*Guia per mesurar l'economia social i solidària des dels ens locals[13]*).

3.3.3 Network Analysis

The network analysis of the Centre-East district of Sant Cugat resulted in a net of 126 nodes, structured in a single component (no isolated sub-networks). Linkages among the nodes are relatively dense (density index=0.0115, 181 linkages), meaning that there is a relatively high connection between initiatives. That said, centrality is also notable (centrality index=40.10%), meaning that much of the density of the network can be explained by the role played by a handful of central organizations. The most central organizations, i.e., those that were mentioned the most as being linked with other organizations, were *Cal Temerari* (52 linkages), *Hora Bruixa* (36), *El Cugatenc* (29), and *XES* (21). These are very different organizations, but all of them have in common a strong dynamism and capacity to establish relations with other organizations, both within and outside their sector and with the administration. For instance, *Hora Bruixa*, which is a feminist collective that carries awareness raising and training campaigns, has a large network of collaborations with other feminist groups, but also collaborates with the Sant Cugat Town Council to design gender policies, write a monthly article in *El Cugatenc* and is hosted in the *Cal Temerari* premises.
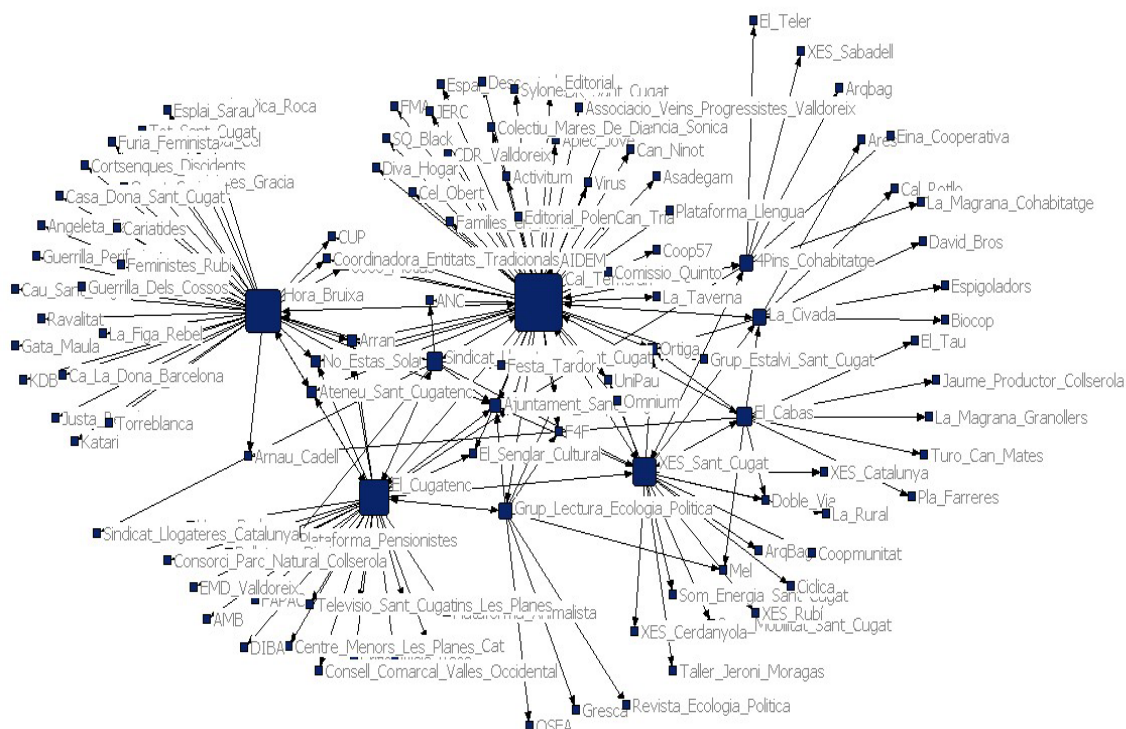
Graph 33. Network of the 9 prosumer initiatives of Centre-East Sant Cugat

Note: The size of the nodes reflects the centrality (i.e., number of in and out-linkages) of the organization.

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[13] https://www1.diba.cat/llibreria/pdf/58899.pdf
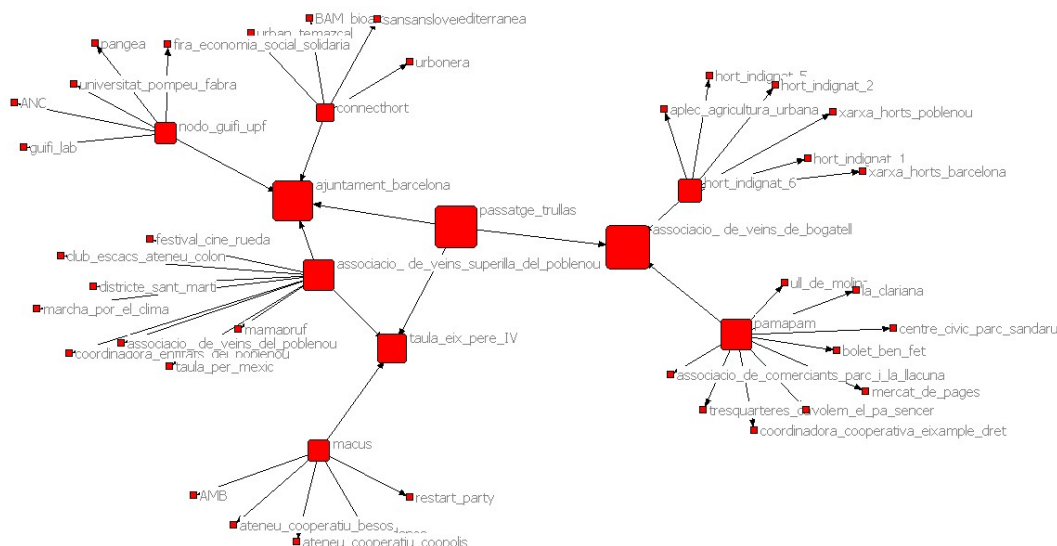
Graph 34. Network of the 7 prosumer initiatives of La Llacuna i Poble Nou. Note: The size of the nodes reflects the centrality (i.e., number of in and out-linkages) of the Organization.

The network analysis of La Llacuna i Poble Nou resulted in a net of 47 nodes, structured also in a single component. Linkages among the nodes are not as dense (density index=0.2175, 47 linkages) as in the Sant Cugat network (index=18.16%). This is also reflected in the absence of clearly central initiatives. The most central organizations are *Pam a Pam* and *l'Associació de Veïns de la Superilla*, but the linkages of these organizations (10 and 10, respectively) are clearly lower than those of the most central initiatives in the Sant Cugat case (between 21 and 52 linkages).

Important for our purpose was also studying the "location" of public authorities within the networks. Both networks profile municipal governments (Sant Cugat Town council and Barcelona City Government, respectively. These governments are the only public authority profiled in the networks. Also, these public authorities are not very central (6 linkages in the Sant Cugat network, and 4 in the La Llacuna network, respectively), they the most connected "alter" nodes of both networks (receive the largest number of in-linkages in both networks). In other words, they were named the most by the surveyed prosumer organizations.

Finally, it is important to note that 3 of the 6 most central prosumer initiatives among those surveyed belong to the culture/leisure sector.

3.3.4 Commons identity

Results show that there is some "commons" identity among representatives of the surveyed initiatives in both neighborhoods, but said identity is far from being dominant of homogeneous. Interviewees from 7 out of the 16 initiatives (3 in Poble Nou and 4 in Sant Cugat) reported a strong commons identity. They did so in different ways, ranging from relatively plain understandings, e.g., by referring to "sharing of resources" and "co-management"; to quite sophisticated elaborations, i.e., based on political economy theory (see Box 6 for illustrative quotes). Those not strongly identified with the "commons" idea, either did not know about the term, reported the lack of any collective reflection within their organizations about it, or argued that their activities were too heterogeneous to be classified under a single concept.

Representatives of one of the 16 initiatives, did not identify their initiative with the commons idea and were rather against it. Interestingly enough, this initiative enjoys a very central position in the Sant Cugat case network. As stated by the interviewee:

> "[...] We are a mostly Marxist project and the people who participate in our Assembly tends to be libertarian. We do fit in the theoretical definition because the "urban commons" definition is everything and nothing. Because outside the "*Comuns*" environment and the *Iniciativa* think tanks, there are other ways to conceptualize the people's movement, like in Chile (*Cal Temerari*, Sant Cugat)

"Due to anarchist and communist ideas, we are obviously in favor of socialization of knowledge and, in our case, of means of production. Beyond this there is not a real "common" yet. But we participate in commons banks. We have participated also in ventures led by Michel Bauwens. I mean, we are in the game".

MACUS (Poble Nou-Llacuna)

"I believe so. We are an initiative that benefits the people who participate but also goes beyond the people who participate. I mean, it is grounded in many reasons, not just environmental reasons but also social and political".

Pamapam (Poble Nou-Llacuna)

"Telecommunications are a fundamental to develop other initiatives. That is how internet started, public universities promoted it until the private sector realized that it was a profitable venture […] The network works as a commons, with a commons license; and we also believe that contents have to be liberated into a Creative Commons license"

Nodo Guifi UPF (Poble Nou-Llacuna)

"The Reading group itself is very coherent with the commons idea. This is because the purpose is to share thoughts openly among everyone, and also because the content of our thinking is very much aligned with commons thinking"

Grup de lectura d'ecologia política (Sant Cugat)

"Yes, absolutely because our main objective is the promotion of networking among the various initiatives that aim for an economy that is socially responsible and fair".

Xes (Sant Cugat)

"The renters union was born to build sense of community, mutual support, and synergies in favor of the commons because we create synergies and do the job so it benefits everybody; before you had to pay a lawer as a consultant. What motivates us is the general interest and the commons interest, share the problems that we face".

Sindicat de Llogateres (Sant Cugat)

"We believe that we need to do the job ourselves, i.e., decide how to do it, because otherwise you are dragged by capitalism. We want to live, live together, that many people are able to stay in Sant Cugat and change the model and fight for ourselves"

4Pins Cohabitatge (Sant Cugat)

Box 6. Commons identity in Sant Cugat Centre-East and in Parc i La Llacuna Poble Nou (*Do you think your initiative fits the idea of the commons?*)

3.3.4 Relationship with the Public Administration

Insights gained in the case studies about experiences of coproduction (i.e., collaboration with the Public Administration) are also significant. As a preliminary analysis effort, we synthesized them into five types of experiences. First, there are the initiatives that have ***no experience of***

collaboration with the Public Administration and are not necessarily interested in engaging in such collaboration. That is the case, for example, of the *Hort Indignat* initiative. As pointed by one of its representatives, their experience:

> "is neither good or bad… we are not interested. We are good, happy. In one of our last assembly meetings a member of the group asked the rest whether we were interested in formalizing our existence as a legal person or organization and we decided against it; we were good as of now. A similar example is that of La Civada, a food consumption association in Sant Cugat. As pointed by the corresponding interviewee they "have never had the need (*to collaborate with the local government*)".

Second, there is the ***frustrated collaboration*** type of experience. Contrary to the previous experience, the initiatives are interested but the local government appears to be rather irresponsive to the possibility to collaborate. That is the case, for example of *GUIFI*, a internet/"wifi" cooperative. As reported by an interviewee:

> "there has been a frustrated and failing relationship with the Barcelona city government for several years. When we contact them, they ignore us. I mean, they own a network of optic cable that we want to have access to so to increase our capacity and they do not allow us. They do not want to give us access because the Barcelona city government has signed contacts with private firms and has conflicts of interests related to national sovereignty that prevent them to cooperate with citizens."

Third there is the ***limited and skeptic cooperation***. Here the initiatives do collaborate with the local government but do so rather marginally and without a clear motivation. An example is that of *Macus*. As explained by a representative, this initiative originated:

> "from the Cooperativa Integral Catalana, which was born from the expropriation of half million Euros to the banks. So, ideologically we are quite against having anything to do with the Public Administration... we hide. But, what happened? As we evolve, this idealization of not having any relationship with the government fades off. So, in 2018 we constituted the cooperative. People from the Ateneu Cooperativo de Barcelona told us: there is a call, send an application... and that is how we started to relate a bit with the Administration, but just to get funds. That was it." Another good example is that of Hora Bruixa. As pointed by an interviewee, "yes, (*we collaborate via*) "dona Informacio", the information service for women and LGTBI in Sant Cugat. They looked for us and we understand that the Administration also does things that work. We are not interested at all (*to collaborate*) because it may be counterproductive, and it is easier to work via self-organization thatn depending on the city government's discourse"

Fourth, there is the ***limited but trusting coproduction.*** Here the initiatives recognize the relative importance of the Administration for their activities and also report a positive experience. That is the case of *Pam a Pam*. As reported, they only:

> "interact with the Administration via the Civic Center, which is also a municipal entity, but not directly. In fact, we are not formally recognized. We do not have NIF or anything similar. The Civic Center provided us with a space, which is an advantage. Other cooperatives struggle a lot to enjoy a space in the city". Another good example is that of the XES in Sant Cugat. As pointed, "one of the pioneering commissions is the cooperative housing developed in public state with the collaboration of the government. We got in touch with the Administration and have had since then several meetings that worked

very well. The government committed verbally to give us a state concession. We have to see now whether the change in government will affect it but it was in the media, so we hope nothing changes. Indirectly we also work with the Ateneu Cooperatiu because the city government created the Social Economy General Plan, which had as a mission to promote social entrepreneurship in the city".

Finally, there is the **_effective coproduction_** type of experience, which is the strongest form of collaboration. As reported by a representative of _Superilla:_

"our relationship with the District authority is very direct. In fact, we also share a chat with them, but it is not official, obviously. With the Department of Mobility there is also quite some contact. And the technical counselor of the district lives there... we feel that the district gives us more support... but Janet Sans (incumbent vice-major) said that this (_the Superilla_) would remain in place, I mean, she defended it".

4   Conclusions

Since the financial crisis of 2008, citizens-led initiatives have emerged as a source of social innovation in several sectors, including local economic development. In Catalonia, and more specifically in the Barcelona Metropolitan Area, citizen initiatives have been studied and mapped out through various research projects using different conceptual frameworks (social innovation, social and solidarity economy, collaborative housing, etc.). The nature of these initiatives can be highly diverse from cooperatives of the social and solidarity economy, to agro-ecological food consumption networks or informal family-care groups. What brings them together, however, is an attempt to provide solutions to everyday needs that rethink establish sectors and state and market provision. Many of these initiatives can be considered "commons", prompting a reinterpretation of the economy through a focus on users-centered production and management of goods and services (Benkler, 2007). In cases where public administrations, particularly at the municipal level, have provided direct or indirect support for the consolidation of these initiatives and their networks, we can talk of different degrees of co-production.

The project *Commons Coproduction and territorial development in the Barcelona Metropolitan Area* aimed to examine such commons coproduction in terms of the local economic development in the Barcelona Metropolitan Area. The project has analyzed the concentration and territorial articulation of pro-common co-production initiatives (initiatives through which citizens provide themselves with services with the support of local governments) and their effects in terms of territorial development and socio-environmental justice, through descriptive statistical analysis, analysis GIS, cluster analysis and two territorialized case studies, including network analysis. While there is a clear need for further analysis and research to systematize and undertake more in-depth interpretation of the database and of territorial relationships, the results of this study offer a greater territorialized understanding of the emergence of commons initiative, their distribution by economic sector and territory, as well as closer look at the complex multisectorial networks that support higher concentration in specific areas and neighbourhoods of the Metropolitan Area. The key findings are summarized below.

General statistics and territorial distribution
- Commons initiatives represent 40% of the 1,160 citizen initiatives in the Barcelona Metropolitan Area.
- 75% of all commons initiatives belong to the Services sector; 15% Goods and services, 5% to knowledge
- In terms of economic sectors, commons initiatives constitute 56% of citizens´ initiatives in Agroecology, energy and environment, 55% in technology and logistics and 54% in housing, followed by Health and mutual support at 46%, culture and leisure at 34%, education and knowledge at 27% and consulting and ethical financing at 22%.
- Half of commons initiatives belong to the categories of "Agro-ecology, energy and environment" and "Culture and leisure".
- In terms of co-production, approximately one third of activities are carried out in some degree of relationship, and at times in collaboration, with the public administration, mainly at the municipal level.
- 77% of all initiatives in our database were since the year 2000; more than half since 2010.
- In terms of spatial concentration, 40% of commons activities are located within the

boundaries of the City of Barcelona.

- Important clusters were also found in the municipalities of L'Hospitalet de Llobregat, Sant Cugat del Valles, Cerdanyola del Vallès, el Prat de Llobregat, Badalona and Santa Coloma de Gramenet.

Cluster

- The prosumer variable can be used to discriminate citizen initiatives.
- Prosumer initiatives tend to cluster around agroecology/energy/environment and culture/leisure as alternatives to the state and markets; and to a lesser extent around the housing and health/care sectors, as alternatives to markets.
- The counseling/finances/other sector dominates the group of non-prosumer citizen initiatives; however, the agroecology/energy/environment, culture/leisure, and technology/logistics sectors are also important.
- The existence of initiatives that belong to similar sectors and are alternatives to markets and the state in the prosumer and non-prosumer groups suggests the need to better understand similarities and differences across the two groups.
- Further research shall explore alternative clusters by integrating the characteristics citizens initiatives and territorial/neighborhood characteristics.

Case study

- There are different "commons" initiatives in both study sites with consolidated internal democracy and a markedly transformative character.
- The social networks of the two neighborhoods are a reflection of the neighborhood's associative and cultural history and show a sense of belonging to the neighborhood or city.
- There are important differences across "commons" initiatives in terms of the roles they play within the networks that relate them with each other and with other social and public organizations
- City/town governments were frequently mentioned by the surveyed representatives of "commons" initiatives as being part of their network of relationships
- The territorial impact of the initiatives is highlighted with regard to both economic, social and environmental aspects.
- The most prominent economic impact is the promotion and development of the social and cooperative economic model within the neighborhoods/districts.
- The most prominent social impact is the promotion of social cohesion and inclusion
- The most prominent environmental impact is the participation and promotion of environmentally friendly value chains.
- The relationship between "commons" initiatives and the public administration is not uniform. There are experiences of success but also of frustration and skepticism.
- Only half plus one of the initiatives considered as commons recognize themselves in this sense. Those that do not do so either because they have not proposed it or because they associate the term with certain political ideals and parties.

Bringing together the different strands of the project, it is apparent that commons activities reflect wider economic patterns of the Barcelona Metropolitan Area. This is visible both in

terms of sector development and in terms of absolute spatial distribution and concentration of initiatives. At the same time, once concentration is analyzed at the neighbourhood scale, and with a multi-sectorial approach looking at degrees of connectivity, such as betweenness, longer institutional and civic organization histories play an important role in explaining their development and consolidation over time.

5   Recommendations to the City of Barcelona

The workshop carried in October resulted in a shared understanding and a series of proposals that we synthesize here below. The participants were invited to address the question of *What public policies should be encouraged to promote commons initiatives taking into account contextual variability.*

General statement

The current social, labor and housing precariousness, the expansion of an economic model that generates inequality, or the culture of leisure focused on consumption, have progressively hindered social cohesion and citizen participation in public affairs. This study and the mapping of initiatives more specifically, illustrates the proliferation and of a number of commons initiatives within the AMB, as well as a somewhat unequal distribution across neighborhoods. This unequal concentration shall be taken into account when designing territorial policies. Still, there is an overarching need of a change in the way public authorities relate to the territory. This change can be synthesized in three points. First, formulating policies requires new public management expertise that can make the best of citizen self-organization and collective uses. Secondly, it is important to distinguish between the social and solidarity economy and the commons economy (i.e., based on prosumer initiatives). Finally, there is the need to promote an administrative culture (e.g., among public policy makers and street-level managers) whereby governmental support to citizens' projects does not mean the subordination, control or appropriation of these by the government. In this vein, an important change would be the simplification of administrative procedures and the promotion of ad hoc measures to guarantee, or at least not hinder, commons activities (for example, in the case of child care groups, the required licenses makes the collective organization of participants more difficult).

That said, the purpose of policies shall be different depending on whether there is social and critical mass or not. In the first case the role shall be of accompaniment and facilitation. In the second, it may be worthier to explore alternative actions such as training, dissemination of knowledge or generation of opportunities to share ideas and experiences. These actions shall create momentum around citizen participation and in turn contribute to the better implementation and effectiveness of future territorial policies. The way in which policies are implemented is also important, and the creation of municipal and supra-municipal spaces that work independently of the political context and give continuity and contribute to the implementation of the policies. In this line, it is important to have street level agents in the territory that work directly with the commons initiatives and entities, and thus understand their unique needs and potential for public management.

Concrete proposals

There is also the challenge of promoting connections and **synergies between commons initiatives**. This can be accomplished by providing meeting venues, extending the working hours and agenda of street level public employees, expanding areas and teams dedicated to the accompaniment of groups promoting coordination meetings. All these measures would help to generate or increase trust and cooperation between groups and, most probably, also with the public administration. This in turn would make possible the co-production of public policies between commons initiatives and the local government.

With regard to administrative formal procedures, there is shared understanding about the need to simplify and revise contracting processes, financial support instruments and accounting:
- In public bids: avoid competition logic between commons initiatives and encourage alliances as an alternative to public tenders and competition formulas
- In small subcontracts, give equal priority to cost-effectiveness and quality (European regulations allow for it).
- Create instruments that make tax payment easier and/or mechanisms that facilitate learning
- Encourage the use of Creative Commons licenses and promoting the reuse of the information generated
- Diversify financial support mechanisms beyond direct subsidies and cession of spaces
- Prioritize sustainability in the promotion of new initiatives
- Institutionalize the Social Balance (XES) and Community Balance (XEC-XES) to assess the quality of the initiatives and do so progressively and paying attention to diversity. The evaluation of certain initiatives shall require specific criteria. New initiatives shall require a transition period before fully complying with all requirements.
- Given that public contracting is marked by a European regulation based on free market, there is a need that experts in the European market regulation to provide training to the employees of the city government, so they are better able to build on said regulations to benefit commons economy.
- Create training programs so public employees shall become more acquainted with the commons management practices and culture.

In relation to the **diffusion of knowledge**, it is proposed:
- The co-design and implementation of awareness-raising campaigns by governments and commons initiatives.
- The design and implementation of campaigns that give visibility to practices and data, for example on agroecology and food consumption cooperatives, or the particularities that make collaborative economy and platform economy different.
- Develop measures that increase the credibility and legitimate commons initiatives, for example in the health sector.
- Elaborate cooperative management training programs based on the AMB experience that can be offered in secondary schools and Universities.

In relation to the coproduction of **public policies that promote commons** economy

- Promote an "alliance of municipalities for commons and social and solidary economy". The alliance should promote the sharing of information among initiatives to facilitate cross-learning
- Empower the creation of platforms that share knowledge in open access
- Promote replicability of projects while respecting the idiosyncrasy of each neighborhood. Publicly funded projects should be replicable across neighbors and by different interest groups.
- Promotion of planning so there are economies of scale across the territory and a common set of goals that align with land planning in urban areas.

6   ANNEXES

Annex 1. Table of 56 initiatives that have been geolocalized (with approximate locations).

FID	OBJECTID	F_ID	Nombre	Calle	Núm_	Municipio	Address_Fi	City_Field
9	10 10		A1 Huerto Urbano L'Hospitalet	s/d	s/d	L'Hospitalet de Llobregat	s/d,s/d	L'Hospitalet de Llobregat
39	40 40		Aqui hi ha Bròquil	s/d	s/d	L'Hospitalet de Llobregat	s/d,s/d	L'Hospitalet de Llobregat
59	61 61		Assemblea de aturats de Sant Feliu	s/d	s/d	Sant Feliu de Llobregat	s/d,s/d	Sant Feliu de Llobregat
61	63 63		Assemblea d'aturats i aturades Cornellà	s/d	s/d	Cornellà de Llobregat	s/d,s/d	Cornellà de Llobregat
143	145 145		Banc d'Intercanvi Badalona	s/d	s/d	Badalona	s/d,s/d	Badalona
321	323 325		Cooperativa La Vinya	s/d	s/d	Corbera de Llobregat	s/d,s/d	Corbera de Llobregat
334	336 338		Creant economia social i sostenibilitat, SCCL	s/d	s/d	Barcelona	s/d,s/d	Barcelona
347	349 351		Dèmodé SCCL	s/d	s/d	Barcelona	s/d,s/d	Barcelona
360	362 364		Ecocoope	s/d	s/d	Barcelona	s/d,s/d	Barcelona
363	365 367		Ecoxarxa de Poblenou	s/d	s/d	Barcelona	s/d,s/d	Barcelona
405	407 409		El Senglar	s/d	s/d	Sant Cugat del Vallès	s/d,s/d	Sant Cugat del Vallès
421	423 425		Escola Antaviana	s/d	s/d	Barcelona	s/d,s/d	Barcelona
511	513 515		Gràcia sense fils	s/d	s/d	Barcelona	s/d,s/d	Barcelona
519	521 523		grup de consum del CEPA	s/d	s/d	Molins de Rei	s/d,s/d	Molins de Rei
523	525 527		Grup local Cerdanyola del Vallès	s/d	s/d	Cerdanyola del Vallès	s/d,s/d	Cerdanyola del Vallès
564	566 568		Hospitalet Wireless	s/d	s/d	L'Hospitalet de Llobregat	s/d,s/d	L'Hospitalet de Llobregat
565	567 569		Huerto A3 L'Hospitalet	s/d	s/d	L'Hospitalet de Llobregat	s/d,s/d	L'Hospitalet de Llobregat
566	568 570		Huerto B1 L'Hospitalet	s/d	s/d	L'Hospitalet de Llobregat	s/d,s/d	L'Hospitalet de Llobregat
567	569 571		Huerto B2 L'Hospitalet	s/d	s/d	L'Hospitalet de Llobregat	s/d,s/d	L'Hospitalet de Llobregat
568	570 572		Huerto C1 L'Hospitalet	s/d	s/d	L'Hospitalet de Llobregat	s/d,s/d	L'Hospitalet de Llobregat
569	571 573		Huerto C2 L'Hospitalet	s/d	s/d	L'Hospitalet de Llobregat	s/d,s/d	L'Hospitalet de Llobregat
573	575 577		Huerto del terrado	s/d	s/d	Barcelona	s/d,s/d	Barcelona
574	576 578		Huerto Niu de la Guatla	s/d	s/d	Barcelona	s/d,s/d	Barcelona
576	578 580		Huerto Urbano A2, L'Hospitalet	s/d	s/d	L'Hospitalet de Llobregat	s/d,s/d	L'Hospitalet de Llobregat
577	579 581		Huerto Urbano de la escola univers	s/d	s/d	Barcelona	s/d,s/d	Barcelona
646	648 650		La Cuca	s/d	s/d	Begues	s/d,s/d	Begues
689	691 693		La Troca (Mercat d'Intercanvi de Nou Barris)	s/d	s/d	Barcelona	s/d,s/d	Barcelona
723	725 727		Mercat d'Intercanvi de Begues	s/d	s/d	Begues	s/d,s/d	Begues
726	728 730		Mercat d'Intercanvi i Segona Mà (Banc del Temps)	s/d	s/d	Sant Vicenç dels Horts	s/d,s/d	Sant Vicenç dels Horts
727	729 731		Mercat d'intercanvi i segona mà Castellbisbal	s/d	s/d	Castellbisbal	s/d,s/d	Castellbisbal
732	734 736		Mercat Sense Diners	s/d	s/d	Barcelona	s/d,s/d	Barcelona
748	751 753		no name huerto Hospitalet	s/d	s/d	L'Hospitalet de Llobregat	s/d,s/d	L'Hospitalet de Llobregat
765	768 770		PAH BESOS, SANT ADRIA DEL	s/d	s/d	Sant Adrià de Besòs	s/d,s/d	Sant Adrià de Besòs
771	774 776		PAH CERDANYOLA DEL VALLES	s/d	s/d	Cerdanyola del Vallès	s/d,s/d	Cerdanyola del Vallès
800	803 805		Pomaret	s/d	s/d	Barcelona	s/d,s/d	Barcelona
809	812 814		Queixal d'en Xòves	s/d	s/d	Barcelona	s/d,s/d	Barcelona
838	841 843		Sàpiens SCCL	s/d	s/d	Badalona	s/d,s/d	Badalona
882	885 887		Tota Cuca Viu	s/d	s/d	Barcelona	s/d,s/d	Barcelona
887	890 892		Trocamarina	s/d	s/d	Barcelona	s/d,s/d	Barcelona
888	891 893		Trocandreu	s/d	s/d	Barcelona	s/d,s/d	Barcelona
975	978 980		BARCELONA GREEN MAP	s/d	s/d	Barcelona	s/d,s/d	Barcelona
999	1002 1006		Mas Duran	s/d	s/d	Montcada i Reixac	s/d,s/d	Montcada i Reixac
1012	1015 1019		Riera de Sant Cugat	s/d	s/d	Cerdanyola del Vallès	s/d,s/d	Cerdanyola del Vallès
1015	1018 1022		Hort Comunitari de Badia	s/d	s/d	Badia del Vallès	s/d,s/d	Badia del Vallès
1016	1019 1023		Associació de Regants del Pla de Cervelló	s/d	s/d	Cervelló	s/d,s/d	Cervelló
1108	1111 1115		DONES EN XARXA	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1112	1115 1119		AMICAL WIKIMEDIA	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1113	1116 1120		Donaz	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1114	1117 1121		ACORDAMOS	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1116	1119 1123		FAVORALIA	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1117	1120 1124		ECOFOODNET	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1118	1121 1125		ECO AGRICULTOR	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1119	1122 1126		ECOTRACTE	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1120	1123 1127		ECOCOOP	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1121	1124 1128		ECOSOL	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1134	1137 1141		OPEN FRAME WORKS	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1139	1142 1146		X.NET / Instituto para la Cultura Democrática en la era dig	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1142	1145 1149		TEIXIDORA	s/d	s/d	Barcelona	s/d,s/d	Barcelona
1143	1146 1150		15MPEDIA	s/d	s/d	Barcelona	s/d,s/d	Barcelona

Annex 2. The 'remainder' neighbourhood

The 'remainder' neighbourhood is a layer that includes mostly green and largely unpopulated areas. The overall area contained 18 initiatives, but the territorial categorisation spread across a vast area was not helpful to our analysis of concentration, and as such we decided to remove it from the cartographic representations of the dataset.
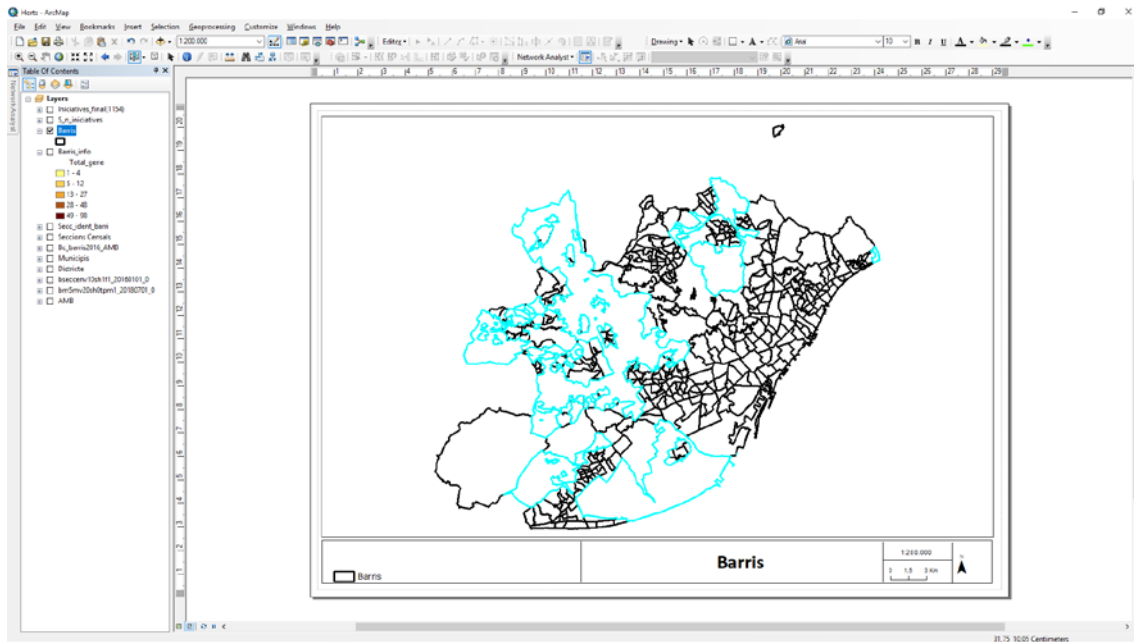
Annex 3. Initiatives of Case Study 1. CENTRE EST, SANT CUGAT DEL VALLÈS.

Iniciativa	Any Fundació	Forma Jurídica	Categoria	Naturalesa de l'alternativa	Producció	Democràcia Interna	Prosumer	Transformació interna	Transformació externa	Relació Administració Pública
El_Cabàs	2003	Associació	Agroecologia, energia i medi ambient	Alternativa al mercat	Servei	Avançada	Sí	Socioambiental	Socioambiental	Local
Cal_Temerari	2015	Associació	Cultura i oci	Alternativa a l'Estat i al mercat	Servei	Avançada	Sí	Socioambiental	Socioambiental	Local/Supra-local
Grup_Lectura_Ecologia_Política	2016	Agrupació informal	Educació i coneixement	Alternativa a l'Estat	Coneixement	Avançada	Sí	Socioambiental	Socioambiental	Local
La_Civada	2008	Associació	Agroecologia, energia i medi ambient	Alternativa al mercat	Servei	Avançada	Sí	Socioambiental	Socioambiental	No
El_Cugatenc	2015	Associació	Cultura i oci	Alternativa al mercat	Coneixement	Avançada	Sí	Socioambiental	Socioambiental	Local/Supra-local
XES_Sant_Cugat	2015	Associació	Assessorament, finances socials i altres productes	Alternativa a l'Estat i al mercat	Servei	Avançada	Sí	Socioambiental	Socioambiental	Local
4Pins_Cohabitatge	2019	Associació	Habitatge	Alternativa a l'Estat i al mercat	Servei	Avançada	Sí	Socioambiental	Socioambiental	No
Hora_Bruixa	2013	Agrupació informal	Salut i recolzament mutu	Alternativa a l'Estat	Servei	Avançada	Sí	Social	Social	Local
Sindicat_Llogateres_Sant_Cugat	2017	Associació	Habitatge	Alternativa a l'Estat i al mercat	Servei	Avançada	Sí	Social	Social	Local

Annex 4. Initiatives of Case Study 2. PARC I LA LLACUNA DEL POBLENOU.

Iniciativa	Any Fundació	Forma Jurídica	Categoria	Naturalesa de l'alternativa	Producció	Democràcia Interna	Prosumer	Transformació interna	Transformació externa	Relació Administració Pública
Macus	2012	Cooperativa	Assessorament, finances socials i altres productes	Alternativa al mercat	Servei	Avançada	Sí	Social	Social	Local/Supra-local
Connecthort	2011	Associació	Agroecologia, energia i medi ambient	Alternativa a l'Estat i al mercat	Servei	Avançada	Sí	Socioambiental	Socioambiental	Local
Pamapam	2011	Agrupació informal	Agroecologia, energia i medi ambient	Alternativa al mercat	Servei	Bàsica	Sí	Socioambiental	Ambiental	Local
Hort_indignat_6	2014	Agrupació informal	Agroecologia, energia i medi ambient	Alternativa al mercat	Producte	Bàsica	Sí	Socioambiental	Socioambiental	No
Passatge Trullàs	2017	Agrupació informal	Agroecologia, energia i medi ambient	Alternativa a l'Estat i al mercat	Servei	Bàsica	Sí	Socioambiental	Socioambiental	Local
Associació_veïns_superilla_poblenou	2016	Associació	Cultura i oci	Alternativa a l'Estat i al mercat	Servei	Avançada	Sí	Socioambiental	Socioambiental	Local
Nodo_Guifi_UPF	2014	Agrupació informal	Tecnologia i logística	Alternativa al mercat	Servei	No	Sí	No	Social	Local

Annex 5. Template of semi-structured interview (original)

SURGIMIENTO, DESARROLLO E IMPACTO DE LAS INICIATIVAS PROCOMÚN EN EL ÁREA METROPOLITANA DE BARCELONA.

Objetivo: Entender el porqué del surgimiento, proliferación e impacto de las iniciativas procomún en el Área Metropolitana de Barcelona. Identificar los factores que facilitan la concentración y el desarrollo de las iniciativas y analizar el impacto de éstas en el territorio dónde se ubican.

La entrevista se concertará con cada iniciativa y después se enviará la pregunta 1 (descripción general de la iniciativa) y el cuestionario de redes sociales para reducir el tiempo de la entrevista.

Preguntas:

1. Descripción general de la iniciativa:
   a. Nombre de la iniciativa
   b. Número de miembros
   c. Año que surgió
   d. Gente que produce y gente que consume el bien o servicio
   e. Pago de cuota (sí/no y cuantía)
   f. Reciben financiamiento de la administración pública (sí/no; tipo administración y cuantía)
   g. Presupuesto anual
2. ¿Muy brevemente, nos podrías explicar cómo surgió vuestra iniciativa?
3. ¿Por qué surgió vuestra iniciativa? ¿A qué necesidades quería responder? ¿Qué objetivos tenía?
4. ¿Vuestra iniciativa se basó en algún referente? ¿Cuál? ¿Por qué?
5. ¿Cuál es el área de actuación de la iniciativa, territorio?
6. ¿Qué factores crees que han permitido que vuestra iniciativa se haya desarrollado y consolidado en el barrio o ciudad?
7. ¿Cómo funciona vuestra iniciativa en términos de democracia interna y de participación de los miembros?
8. Crees que vuestra iniciativa ha tenido algún impacto en el barrio y/o fuera de él? ¿Qué tipo de impacto? ¿Qué tipo de evidencias tenéis para justificar esta percepción? Poner ejemplos concretos (impacto social, impacto ambiental, impacto económico) Sugerencias para el entrevistado de posibles impactos:
. Beneficios para la comunidad
      1. Creación de puestos de trabajo
      2. Apoyo a colectivos vulnerables
      3. Incremento de la participación
      4. Mejora de la convivencia

5. Beneficios en términos medioambientales (reducción de residuos, cambios en la consciencia medioambiental, cambios en patrones de consumo, mejora de espacios verdes, etc.)
6. Generación de consciencia política

9. ¿Os relacionáis con otras iniciativas? ¿Por qué? ¿Cómo es la relación? Esta pregunta nos lleva a las preguntas 1 y 2 del cuestionario y las rellenamos. La pregunta 3 la podemos realizar al final de toda la entrevista.

10. ¿Os relacionáis con la administración pública? ¿Por qué? ¿Si es que sí, con cuáles? ¿Cómo es la relación? ¿Como de frecuentemente interaccionáis con cada administración? 1 (una vez al año o menos), 2 (varias veces al año), 3 (mensualmente), 4 (semanalmente), 5 (diariamente). Escribe el número en la casilla de la tabla de abajo. Sí, a través del món escolar.

11. (en caso de respuesta positiva a la pregunta 8 i 9) ¿La relación con otras iniciativas os permite mejorar/empeorar este impacto? ¿En qué medida?

12. (en caso de respuesta positiva a la pregunta 8 i 10) ¿La relación con la administración pública os permite mejorar/empeorar este impacto? ¿En qué medida? ¿Qué podría hacer la administración pública para mejorar vuestra actividad y conseguir mayor impacto?

13. ¿Os reconocéis con la idea de iniciativa procomún o de común urbano? ¿Por qué?

Annex 6. Social Network Questions

1. ¿Con qué otras iniciativas/entidades u organizaciones os relacionáis dentro del barrio? ¿Y fuera?
   Utiliza preferentemente el nombre de la iniciativa, entidad, organización, universidad (con el departamento correspondiente), ayuntamiento, empresa, etc. con el que tu entidad intercambia información, realiza proyectos o tiene una relación habitual.
2. Con qué otras iniciativas/entidades u organizaciones piensas que la iniciativa a la que representas debería colaborar más para conseguir un mayor impacto territorial? Barrio y fuera. Preguntar por qué no se relacionan con las entidades con las que creen que tendrían que relacionarse.
   Utiliza preferentemente el nombre de la iniciativa, entidad, organización, universidad (con el departamento correspondiente), ayuntamiento, empresa, etc. con el que crees tu entidad debería colaborar.

Ahora te pediremos para cada iniciativa citada en las dos preguntas anteriores, la siguiente información.

3. FRECUENCIA DE RELACIÓN: ¿Como de frecuentemente interaccionáis con esa iniciativa? 1 (una vez al año o menos), 2 (varias veces al año), 3 (mensualmente), 4 (semanalmente), 5 (diariamente). Escribe el número en la casilla de la tabla de abajo.

INICIATIVAS CON LAS QUE SE RELACIONAN:

NOMBRE DE LA INICIATIVA	TIPO DE INICIATIVA	FRECUENCIA DE RELACIÓN

INICIATIVAS CON LAS QUE DEBERÍA COLABORAR:

NOMBRE DE LA INICIATIVA	TIPO DE INICIATIVA	FRECUENCIA DE RELACIÓN

Fecha:
Entrevistador:
Hora de inicio:
Hora de finalización:
Nombre del entrevistado:
Sexo del entrevistado:
Año de nacimiento:
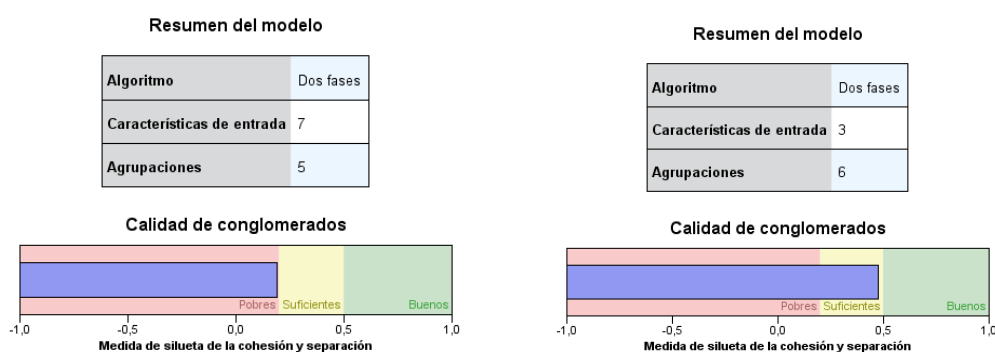Iniciativa procomún a la que representa:
Rol dentro de la iniciativa:
Contacto:

Annex 7. Alternative Cluster Analyses

The Cluster analysis was carried via a TwoSteps Cluster with SPSS software. The algorithm relied on a log-likelihood ratio measure and a Bayesian Information Criterion (BIC) to identify the clusters. We selected variables step wise and chose the set of variables that provided the best fit statistically and substantively. We assessed fit by looking at the Silhouette of cohesion and separation (in the graps below "medida de silueta de la cohesion y separacion"). The silhouette value is a measure of how similar an object is to its own cluster (cohesion) compared to other clusters (separation). The silhouette ranges from −1 to +1, where a high value indicates that the object is well matched to its own cluster and poorly matched to neighboring clusters. If most objects have a high value, then the clustering configuration is appropriate. If many points have a low or negative value, then the clustering configuration may have too many or too few clusters. Below we compare first analysis (including all 7 variables) and the last analysis (included in the main text).

Original 7-variable Analysis (left) and 7-variable Analysis (right)

Resumen del modelo

Algoritmo	Dos fases
Características de entrada	7
Agrupaciones	5

Calidad de conglomerados

Medida de silueta de la cohesión y separación

Resumen del modelo

Algoritmo	Dos fases
Características de entrada	3
Agrupaciones	6

Calidad de conglomerados

Medida de silueta de la cohesión y separación

Clusters of Original 7-variable Analysis

Agrupaciones

Importancia de la característica
1,0 0,8 0,6 0,4 0,2

Conglomerar	4	1	2	5	3
Tamaño	28,4% (330)	24,6% (286)	23,1% (269)	12,1% (141)	11,7% (136)
Funciones	Naturale_1 Alternativa al Estado y al mercado (55,5%)	Naturale_1 Alternativa al mercado (98,3%)	Naturale_1 Alternativa al Estado y al mercado (68,8%)	Naturale_1 Alternativa al Estado de bienestar (75,2%)	Naturale_1 Alternativa al Estado y al mercado (57,4%)
	Categori_2 Cultura y ocio (55,8%)	Categori_2 Agroecología, energía y medio ambiente (49,0%)	Categori_2 Cultura y ocio (32,0%)	Categori_2 Salud y apoyo mútuo (56,0%)	Categori_2 Agroecología, energía y medio ambiente (99,3%)
	Trans__I_1 s/d (90,6%)	Trans__I_1 Socioambiental (95,8%)	Trans__I_1 Socioambiental (72,5%)	Trans__I_1 s/d (88,7%)	Trans__I_1 s/d (44,9%)
	Producci_1 Servicio (80,6%)	Producci_1 Servicio (81,5%)	Producci_1 Servicio (81,0%)	Producci_1 Servicio (74,5%)	Producci_1 Bien y servicio (69,9%)
	Democrac_1 s/d (81,2%)	Democrac_1 Democracia Interna avanzada (62,9%)	Democrac_1 Democracia Interna avanzada (61,7%)	Democrac_1 s/d (90,1%)	Democrac_1 Democracia Interna avanzada (40,4%)
	Trans__E_1 Social (72,7%)	Trans__E_1 Socioambiental (54,9%)	Trans__E_1 Social (62,8%)	Trans__E_1 Social (82,3%)	Trans__E_1 Socioambiental (98,5%)
	Prosumer_1 Si (40,3%)	Prosumer_1 No (50,3%)	Prosumer_1 No (49,4%)	Prosumer_1 No (35,5%)	Prosumer_1 Si (45,6%)

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