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Community Networks and Political Advocacy

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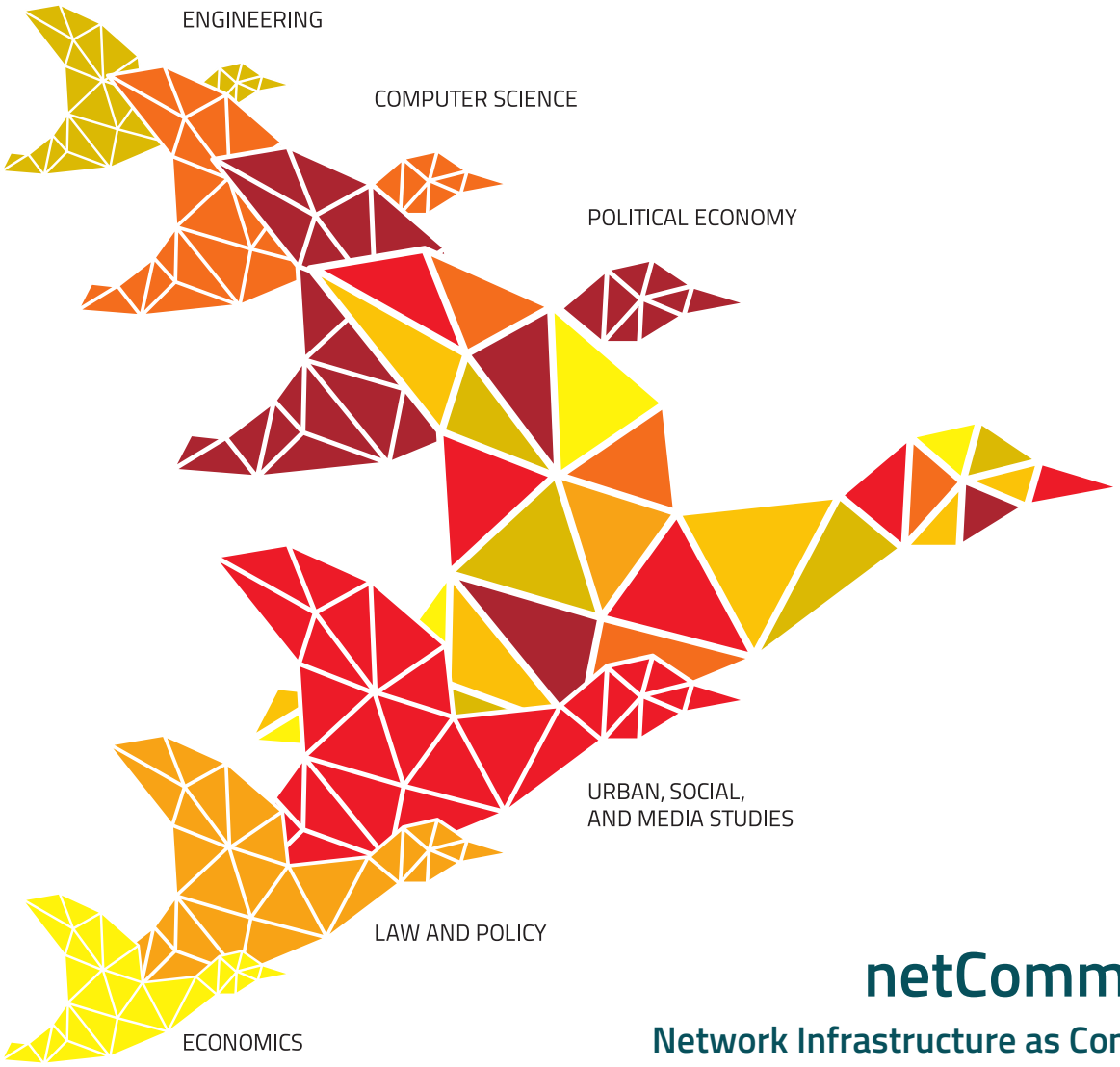

netCommons

Network Infrastructure as Commons

Community Networks and Political Advocacy

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Executive summary

The goal of this deliverable on Community Networks and Political Advocacy is the identification of how Community Networks (CNs) gain leverage on regulators and policy-makers: What are the appropriate organizational modes to engage in political advocacy in order to foster the growth of community networks as cooperative platforms? What are the successful mediation of their interactions with other actors in the telecom sector and the local, national and European policy environments? In short, how can a CN build political advocacy capacities? With "advocacy capacity-building" we identify the process by which CNs can upgrade the collective skills on which they rely to influence policy development, but also to develop and upgrade the procedures and organizational designs devoted to these activities.

To explore these questions, the deliverable's introductory part (Chapter 1 and Chapter 2) provides a generic description of concepts surrounding political advocacy from the perspective of political science and sociology of political movements. Building on previous netCommons deliverables, in particular D1.4 (Navarro, Baig, Felix, et al. Jan. 2018) , D4.1 (Dulong de Rosnay et al. Dec. 2016) and 4.2 (Giovanella, Dulong de Rosnay, et al. Jan. 2018), D5.1 (Trudel et al. Dec. 2016), and D2.2 (Fuchs et al. 2017), it goes on to stress the need for CNs to integrate advocacy as a core activity, and insists on the potential for CNs advocacy to democratize policy-making in the telecom sector–one that has often be shown to be prone to regulatory capture by special interests. We then describe the theoretical framework and methodology adopted for this deliverable, much of which is grounded in participatory observation by the netCommons team Sec. 2.2.

Chapter 3 surveys various case studies that document the ways in which CNs and policy-makers can interact–a documentation process that was hitherto lacking and was called for by members of prominent CNs. Our research shows that CNs have long engaged in these activities, and that these have been increasing in their diversity and scopes in the recent years and months. This was done with the help of various actors evolving around the CN movement in the wider circles on NGOs concerned with Internet policy, but also academic projects such as netCommons. In the course of these interactions, CNs have proved to be able to find appropriate allies and have their expertise recognized by prominent policy actors. We do not find any strong correlation between CNs' governance features and their advocacy capacities. But, as we note, some CNs sometimes mobilize around issues that are relevant to their values and the wider realm of digital rights, but do not necessarily advance their immediate interests or solve the hurdles they face in telecom regulation (Net neutrality being a case in point). What is more, these capacities tend to be concentrated in the hands of very few individuals within CNs, and are too seldom integrated in full-fledged strategies or institutionalized in a way that would help advocacy become a fundamental component of the CN movement. Finally, and perhaps most crucial, the capacity of these groups to coordinate their action at the EU level is still in an emerging, nascent phase.

Based on this research, Chapter 4 makes a series of recommendations on how to build and develop greater advocacy capacities to achieve the highest impact on telecom and other relevant policies. Our recommendations unfold according to four overarching goals.

The first recommendations set aims to build internal and shared legal and policy skills. Here, we suggest that CNs that have not already done so should identify and/or recruit people that can follow policy development and offer advice to the rest of the community. One way this can be done is reaching out to local law faculties, especially those who already have–or are interesting in setting up–legal clinics[1] or providing internships. Another possible model, already experimented by netCommons, consists in organizing the circulation of expertise and the transfer of volunteer or staff members between CNs, academia and NGOs, for instance on the model of academic visiting fellowships. Next, to foster shared legal and policy skills, CNs should identify the applicable legal rules and follow major policy decisions that affect their activities, whether at the international, European, national or local levels. Once this is done, they should foster reciprocal exchange between participants focused on the technical operation of the network and those with legal skills to understand how the law translates into

[1] A legal clinic, as part of training often offered in law schools, proposes students to offer free legal advise to their local community under the supervision of professors.

practical network management practices, and vice versa.

To diffuse legal knowledge and ensure compliance, CNs can organize internal events to train the community on legal issues, offering guidelines on good practices to comply with the legal framework. Legal analysis should also be disseminated through the release of written briefs that can educate CNs participants and the public at large, especially regarding policy developments affecting the life of a CN (whether it is on telecom regulation, data retention, surveillance laws, etc.). A corresponding move is to organize public events that can increase awareness across various publics, especially in the legal profession, about the hurdles faced by commons-based initiatives and make the political issues of telecom policy more salient. Finally, to build and transfer knowledge regarding past advocacy capacities, CNs should make sure to systematically document campaign actions, interactions with policy-makers, and repertoires used during mobilizations so that these can be replicated by others, and/or become part of a reflexive learning process.

The second set of recommendations focus on developing open processes for arbitrating, prioritizing and enacting legal and policy strategies. That means for instance that legal vacuums and other policy issues and hurdles affecting the development of a CN should be identified and debated, so that the community can discuss the concrete ethical and strategic questions facing CNs, for instance between different possible interpretations of the law. If a consensus cannot be reached, procedures should be established to find minimal agreements about which stance should be adopted by the community as a whole, and how organizations and/or participants that differ from the majority can preserve their autonomy while still being part of the movement. Such discussions should ensure that all interested participants can join the discussions on policy. Among several positive externalities, this will entrust leading policy advocates with better insight and legitimacy. To enact their policy agenda, CNs should know who are the key policy-makers at the local or national level to present and discuss their priorities. To that end, they need to come up with effective public narratives, using for instance analogies (like the 'organic' Internet)[2], and document their impact.

The third set of recommendations calls for greater coordination and partnerships among CNs to influence EU policy. In the recent months, in part thanks to netCommons, some coordination has appeared, but it is still to fragile to kickoff a self-sustaining process of capacity-building. This will require effort on the part of leading European CNs, so as to engage in a process of aimed at setting up new coordination mechanisms at the EU level. In doing so, they should address questions such as: What do we expect from greater collaboration? What would we like to share with CNs in other countries? What would our fellow commoners want to learn? How do we articulate European advocacy with ongoing initiatives at the national and international levels? Should these advocacy capacities for European CNs be professionalized, and if so what would be the exact role of a professional staff acting as the lead political advocates of EU CNs? How can it be funded?

The fourth and last group of recommendations regards the strategic positioning of CNs in society. Beyond the internal coordination of the European CN movement, this latter is clearly inscribed in a wider set of civil society initiatives favoring commons-based forms of governance for the management of economic resources. European CNs should nurture partnerships with this heterogeneous movement focused on local empowerment and self-reliance. A key level in this respect is the local one, where civic power can be re-energized and leveraged in the short term; where fostering the resilience of our economies is the most urgent. But CNs who have not done so already should find pro-commons organizations at the national level and reach out to them, while continuing their integration at the European level with the European Commons Assembly. In these various coalitions, CNs should explore what joint mobilizations can be organized to act together, but also learn from these pro-commons organizations from other fields so as to learn from their experience.

In many ways, this Deliverable is the beginning of a process. In the coming months, in part through our ongoing efforts regarding governance and legal analysis (WP4), netCommons will continue to work with CNs to help them develop these capacities, informed by the research conducted and the positive feedback received so far, so as to ensure the long-term relevance of its work for the development and the legal sustainability of CNs in Europe.

[2] Antoniadis 2017.

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List of Acronyms

AMARC	World Association of Community Radio Broadcasters
APC	Association for Progressive Communications
BEREC	Body of European Regulators for Electronic Communications
BT	British Telecom
CN	Community Network
CDN	Content Delivery Network
CNMC	Spanish national regulatory agency
CNRS	Centre national de la recherche scientifique
DC3	IGF Dynamic Coalition on Community Connectivity
ECEC	European Code of Electronic Communications
ETNO	European Telecommunications Network Operators' Association
FFDN	Federation FDN
FDN	French Data Network
FOE	Freedom of Expression
FSF	Free Software Foundation
FSFE	Free Software Foundation Europe
IAP	Internet Access Provider
IARU	International Amateur Radio Union
IGF	Internet Governance Forum
IoT	Internet of Things
ISOC	Internet Society
ITRE	Industry Committee of the European Parliament
ITU	International Telecommunication Union
IXP	Internet Exchange Point
IARU	International Amateur Radio Union
LPM	Loi de programmation militaire
LQDN	La Quadrature du Net
MEP	Member of the European Parliament
NGO	Non-Governmental Organization
NRA	National Regulatory Authority
NWICO	New World Information and Communication Order
RSPP	Radio Spectrum Policy Programme
SIG	Special Interest Group
UMTS	Universal Mobile Telecommunications System
VoIP	Voice over Internet Protocol
VPN	Virtual Private Network

WFCN World Forum on Community Networking

1. Opening: Finding a common voice

On March 16th, 2017, more than 30 European Community Networks (CNs)[1] sent an open letter (see Appendix A[2]) to EU policy-makers whose goal is highlighting what policy should make to foster the growth of bottom-up broadband networks. The letter was signed also by close to 40 supporting organizations from all around the world[3]. This outcome–to which netCommons contributed by drafting the text, collecting comments and suggestions as well as signatures–marked the first time that a variety of European CNs joined their voices in speaking to policy-makers to relay their demands. It was also the opportunity for CNs as an advocacy community to become part of "telecommons", a mailing-list set-up for the occasion, allowing discussion on the content of the letter and the strategy of dissemination and translation.

The letter came at a particular, strategic moment of the EU policy-making process. The EU Parliament was then initiating the legislative process on several proposals reforming the legal framework for telecom regulation across the bloc, culminating with the adoption of a European Code of Electronic Communications (ECEC), nicknamed the telecom package. The ECEC will then be transposed into national legislations, providing an additional opportunity for European coordination of CNs and advocacy at the national parliaments and governments level[4].

Bemoaning the fact that CNs had been systematically overlooked by EU policy-makers, the letter called upon EU institutions to ensure the "continuous development of these citizen initiatives, which provide an alternative, democratic and sustainable way to manage telecom infrastructures and meet the goals of broadband policies".

More specifically, the letter requested the lifting of unnecessary regulatory and financial burdens weighting on their initiatives. It addressed the crucial issue of "third-party liability" for shared access points, referring to legal rules and case-law in certain member states that create legal risks for people who take part in community networking activities through sharing their Internet access with other users, by deeming them liable for the (illegal) activities of other people (a legal risk for the activity of CNs highlighted in Deliverable D4.1 (Dulong de Rosnay et al. Dec. 2016)).

The letter also addressed issues related to network infrastructures. Referring to the increasingly crowded WiFi radio bands, the signatories underlined the need to expand the portions of the radio spectrum open to unlicensed

[1] 020wireless (Netherlands), AIL-Network (France), Alsace Réseau Neutre (France), Aquilenet (France), Association Ribaguifi - Eresué 2.0 (Spain), Asoc. SevillaGuifi (Spain), Common Net (Italy), FAImaison (France), FDN (France), FFDN (France), Franciliens.net (France), Freifunk.net (Germany), Fundació guifi.net (Spain), Funkfeuer (Austria), Grenode (France), Grifon (France), Ilico (France), Illyse (France), Iloth (France), Neutrinet (Belgium), Ninux.org (Italy), Open Network in Croatia (Croatia), Progetto Neco (Italy), Progetto Wireco Ciminna (Italy), Rézine (France), Sarantaporo.gr NPO (Greece), SCANI (France), Tetaneutral.net (France), Tourraine Data Network (France), Wireless België (Belgium), Wireless Leiden (Netherlands), WirelessPT.net (Portugal), Wlan slovenija (Slovenia).

[2] The "Open letter to EU policy makers on community networks. (2017, March 16)" is publicly available on netCommons web site at https://netcommons.eu/?q=news/open-letter-eu-policy-makers-community-networks

[3] ApTI (Romania), ARTICLE 19 (UK), Bits of Freedom (Netherlands), BlueLink.net - Civic Action Network (Bulgaria), Brazilian Association of Digital Radio (Brazil), Chaos Computer Club (Germany), Chaos Computer Club Lëtzebuerg (Luxemburg), Colnodo (Colombia), Common Ground (Germany), Commons Network (EU), Dugnadsnett (Norway), EDRi (EU), EFF (US), Electronic Frontier Norway (Norway), epicenter.works (Austria), Free Knowledge Institute (Netherlands), Free Software Foundation Europe (EU), Frënn vun der Ënn (Luxemburg), GreenNet (UK), hackAIR (EU), Initiative für Netzfreiheit (Austria), Instituto Bem Estar Brasi (Brazil), Instituto Nupef (Brazil), La Quadrature du Net (France), MAZI (EU), netCommons (EU), netHood (Switzerland), Network Bogotá (Colombia), NEXTLEAP (EU), NURPA (Belgium), Nuvem (Brazil), One World Platform (Bosnia Herzegovina), Open Rights Group (UK), Open Technologies Alliance- GFOSS (Greece), P2P Foundation (Netherlands), P2P Lab (Greece), PIE News Project (EU), Project Arig (Israel), Rhizomatica (Mexico), Renewable Freedom Foundation (Germany), VECAM (France), Xnet (Spain), Zenzeleni Networks (South Africa).

[4] Directive establishing the European Electronic Communications Code. Brussels, 12.10.2016. COM(2016) 590 final/2 2016/0288(COD).

or affordable authorization schemes. Another problem mentioned in the letter was a recent Directive on radio equipment that created legal risks for people installing their own free software on radio hardware used in their wireless networks. Citing an ongoing process of oligopolization of landline networks[5],especially fiber-optic last-mile networks, the document argued that "open-access" rules needed to be updated to allow alternative players to reach end-users on these existing networks.

The signatories mentioned the fiercely debated issue of data retention. Referring to the Digital Rights and Tele2 rulings of the EU Court of Justice and the still ongoing legislative debate on the ePrivacy directive,[6] they rejected "blanket data retention obligations," calling on lawmakers to "close existing loopholes in EU law to ensure that only targeted and limited retention obligations can be imposed on hosting and access providers". The letter closed by calling for "direct and targeted public support" for Community Network initiatives, as well as the opening of the policy-making process to Community Networks.

The reason we mention this initiative at length at the very beginning of this document is to highlight the legal and policy issues that affect most CNs, and to situate the rest of this Deliverable in this broader context of communication and information policy, defined as the "role of laws, regulations, and public institutions in shaping the deployment and use of communication and information systems" (M. Mueller et al. 2004), and in particular of telecom policy. But this initiative, initiated by netCommons, also speaks of what may be deemed a seminal moment in the history of the CNs movement in Europe, where representatives of these bottom-up initiatives managed to find a common voice, identify priorities, and start collaborating to turn these demands into actual policies.

By its very uniqueness however, this open letter also reveals a more general fact: The fragile nature of the movement's advocacy capacities, and the need to reinforce them. The goal of this Deliverable is therefore twofold:

- On the one hand, identifying existing advocacy efforts across Europe that can illustrate the diversity of models and action repertoires in the movement;
- On the other hand, it puts forward various scenarios that can nurture the collective thinking of the movement on how it can self-reinforce its advocacy capacities.

[5] See Chapter 2 in Deliverable D2.1 (Fuchs et al. 2016)

[6] CJEU, 8 April 2014, Digital Rights Ireland Ltd & Michael Seitlinger e.a., C-293/12, and CJEU, 21 December 2016, Tele2 Sverige AB et Secretary of State for the Home Department, C-203/15 et C-698/15. More on these cases is discussed in Deliverable D4.2 (Giovanella, Dulong de Rosnay, et al. Jan. 2018)

2. Introduction

Advocacy is an important part of any activity that challenges economic or political status quo, but it has a particularly important role in the realm of communications and networking, where technical standards, economic regulation, and human rights intermingle to create that incredibly complex ecosystem that we call the Internet. The right mixture of freedom, technical specifications, regulatory safeguards and other policy interventions can make the Internet an engine for the sustainable development of our societies. But conversely, useless regulatory burdens, oligopoly-protecting rules, and unwarranted attempts at social control can hamper communication rights and dissuade whoever seeks to shape new communication ecosystems, and CNs in particular.

Building on the example of an advocacy campaign surveyed in Chapter 1 this Introduction offers a generic overview of concepts surrounding political advocacy from the perspective of political science and sociology of political movements. In particular, we survey various factors and ways in which CNs and policy-makers can interact, characterize the power balance affecting policy-making in the telecom sector, and stress its adverse, inhibiting effects on the development and growth of CNs (Sec. 2.1). We then describe the theoretical framework and methodology adopted for this Deliverable, much of which is grounded in participatory observation by the netCommons team (Sec. 2.2).

The Deliverable then moves on to present several case studies of previous advocacy activities (Chapter 3) at various policy levels (local, national, EU, judiciary, and international). It ends on a broader reflection on the lessons learned from these previous experiences on which we base a series of recommendations aimed at enhancing the advocacy capacities of CNs. The ongoing reform of the EU telecom package and the netCommons project both served as perfectly timely catalysts for collective action and structured organization of CNs at the European level but, as we stress, there is a dire need for these capacities to develop further since the EU is where much of telecom policy affecting CNs across Europe is decided.

The Annexes document in detail two of the advocacy activities which have been led by netCommons in 2017, as the European policy agenda perfectly matched the schedule and objectives of our project, giving an opportunity to experiment in real time, and make this deliverable a concrete experience to develop skills, a strategy and get results, rather than a mere exercise in political theory. They include:

- The Open Letter which sent in March 2017 to the EU policy-makers by 30 CNs and 40 digital rights organizations.
- Notes that were circulated in May and June 2017 and used to request meetings with Members of the European Parliament before a key vote in the EU reform process. These notes were intended to explain key points of a heavy and complex piece of legislation, their possible impact on the livelihood of CNs and on users' rights, and finally, a guide to vote in favor or to rejects amendments, the proposed modifications to the legislation.
- The program and the summary of a workshop which we organized at the European Parliament workshop.

2.1. Background: Why is advocacy important to alternative networks?

First, we need to lay out a few definitions of what exactly we mean by policy advocacy and provide a few landmarks to understand how the notion plays out in the discourse and practices of the actors under consideration.

2.1.1. What is advocacy?

Traditional approaches in political science usually refer to advocacy as "the act of pleading for or against a cause, as well as supporting or recommending a position" (Hopkins 1993, p. 32). More specifically in the context of this report, advocacy refers to lobbying, the activity of addressing decision-makers to influence the outcome of the political system.

Lobbying has a negative connotation: It evokes the forms of influence exerted by various–in particular corporate commercial–actors to influence policy outcomes, sometimes through illegitimate, secret or even illegal means in order to obtain either undue advantages or even rules that protect particular interests against the general good.

Non-profit advocacy, or what we might also call "grassroots lobbying" or "counter-lobbying," is different from corporate lobbying in several ways. Specifically non-profit actors engaging in advocacy can legitimately claim to be promoting some version of the "public interest," or at least "counterbalancing the bias toward privileged groups by advancing the collective interest of the general public and underrepresented groups" (Powell et al. 2006, p. 308). Of course, different notions of "public interest" will compete with each other, even in the non-profit sector, given the agonistic nature of politics (Mouffe 1999). But while non-profit actors do not normally act according business interests, policy-makers often focus on commercial interests in order to support narrow understanding of "growth" or "employment". They may not be aware of other economic models that respond to different conceptions of the public interest, and which are sometimes more in tune with the alleged goals of a given public policy.

By virtue of being non-profit, such advocates will enjoy forms of legitimacy that increase their ability to mobilize other similar groups, from volunteer citizens, whereas corporate actors will be only rarely able to gather such "disinterested" support. This, in turn, leads to a difference in the way advocacy is done. The range of strategies and tactics that shape a movement's "action repertoire" can be "constructive," like the sort of open letter directed to policy makers mentioned in Chapter 1, or the participation in parliamentary hearings, or it can be more unruly and use "less consensual" forms of political participation, like protests, happenings and other types of contentious performances.

While the constructive forms of advocacy–those that seek to establish a dialogue with institutions and policy-makers–may be overall similar between for-profit and non-profit advocacy, the non-consensual forms of political engagement aim at taking policy-makers by surprise, or exerting pressure from outside institutional channels. For various and rather obvious reasons, corporate lobbying usually avoids resorting to such defiant tactics.

Political advocacy seeks to influence policy-makers to adopt laws, regulations or decisions which will serve, and/or not hamper, their interest. Policy-makers can refer to lawmakers in Parliament, government officials and other administrative bodies from the executive branch, but also judges in the courts: All those who occupy privileged positions in the policy-making process and whose decisions will affect the interests that advocacy seeks to defend or derail.

All these institutions manage the legal rules that shape social interactions and are meant to balance competing interests. In the telecom sector, the law is organized around various topics like data flows (with issues such as privacy or intermediary liability), economic regulations (competition law) that CNs have a direct stake in, as suggested by the open letter to EU policy makers. If, following Lessig (Lessig 1999), it is clear that the technical infrastructure itself has a similar structuring effect on the actors' actions and interactions, technology is also often over-determined by the law or other forms of regulation. So it is not only Parliaments as law-making institutions that can be targeted by advocacy, but also those institutions and bodies acting as technical standard-making institutions (e.g. IETF, ITU, an expert working group of the EU Commission, etc.). As our case studies will make clear, advocacy on behalf of CNs is most often aimed at policy-makers to resist or promote specific regulations regarding the adoption and use of a given technology.

Various centers of power regulate the telecom ecosystem. Among these centers of power, many are tied to the government, influenced by it or by powerful actors that have established stable relationships with people

in government (like companies and trade groups that dominate the telecom industry). The task for political advocates challenging dominant policies is to engage with institutions, to push them to adopt different legal and technical regulations. But by doing so, challengers question and contest different ideologies and normative beliefs that underlie the adoption of existing legal and technical codes.

To draw on political philosophy, dominant ideologies are concepts referring to the structures of representation that determine the way the antagonism around specific policy options plays out, how the policy rationales governing legal and technical code-making processes emerge and evolve. Ideology is of course a central concept for political advocates devising strategies, because for many of them, influencing the evolution of these long-term structures of representation and power is often the best way to achieve the significant political change they call for. However, these ideologies evolve slowly and are often hard to grasp, all the more considering the fact that they tend to be obscured either by intent or neglect in the actors' tactics, and the complexity of the legal and technical codes that are most often the objects directly targeted by the short-term strategies of grassroots political advocates.

2.1.2. Political opportunity structures, political identities, action repertoire

Engaging in political advocacy does not necessarily require significant resources, and this can be conveyed to newcomers to political activism, who might be impressed by the authoritative character of the institutions involved. An open letter or a picketing operation in front of the Parliament conducted by a group of a dozen people can be very effective under certain conditions. Now part of these conditions have to do with the political systems, and what political sociologists call a "structure of political opportunity" (D. S. Meyer et al. 1996).

By these terms, they refer to a set of variables that make a political system open to challengers. According to Tarrow and Tilly, the openness of political systems (or "regimes") is characterized by the following features: a multiplicity of independent centers of power, the openness of these centers of powers to new actors and to claim-making, the unstable nature of the political alignments prevailing in each of them, the availability of influential allies or supporters for challengers (Tilly et al. 2015, p. 240).

The tactics of political advocates will be determined by the political opportunity structures. In this spirit, Mahoney compared variations in lobbying activities in Washington D.C. and in Brussels (Mahoney 2008), how actors approach specific legislative debates, choose their arguments and set up advocacy tactics. Highlighting the differences between the two political systems, she characterizes the EU system as an "elite pluralist" one, where the political opportunity structures have been shaped by both corporatist and statist[1] traditions. The role of the Council of Ministers, which shares the role of co-legislator with the European Parliament, is important in this regard, considering the fact that despite its fundamental importance in the policy-making process, its procedures are much less transparent and open to external actors compared with traditional parliamentary processes (Hillebrandt et al. 2014). In theory, this lack of transparency tends to make the EU political opportunity structures more closed to the claims of challengers.

An understanding of the structure of power relations, in addition to information on the functioning of the law-making process, agenda and timing, will be useful for new actors to demystify the black box and focus on points where a contribution of the civil society can make a difference.

Tilly and Tarrow also stress how opportunity structures affect political identities, the names and values attached to a given political actor, which in turn determine advocacy practices, or "action repertoires", that is the array of actions that are available to a given political actor that wishes to engage in advocacy. According to them:

> "*Repertoires draw on the identities, social ties, and organizational form that constitute everyday social life. From those identities, social ties, and organizational forms emerge both the collective claims that people make and the means they have for making claims. In the course of contending or watching others contend, people learn the interactions that can make a political difference*

[1] In political science, statism is the belief that the state should control either economic or social policy, or both, to some degree.

> *as well as the locally shared meanings of those interactions. The changing interaction of everyday social organization, cumulative experience with contention, and regime intervention produces incremental alterations in contentious performances.*" (Tilly et al. 2015, p. 240).

Considering the different ways by which actors engage in claim-making, one interesting distinction used to analyze how political opportunity structures and political identities affect action repertoires is offered by Stefania Milan (an Advisory Board member of the project) in her work on "radical techies" and engineers who specialize in offering social movements tools allowing for communicational autonomy (Milan 2013). For her, their contentious performances fall in one of three categories, depending on whether the challengers want to act as:

insiders: formally interacting with the power holders in order to make them support the deployment of CNs;

outsiders: pressuring power-holders from outside the political system, by means of protests, demonstrations and other campaigning tactics aimed at voicing dissent;

beyonders: acknowledging that law and regulation will always be late compared to law and policies, and purport to influence the networked ecosystem by remaining beyond the political system, for instance by focusing on alternative technical infrastructures that can give a practical reality to their claims.

Although the nature of advocacy performed by CNs may naturally be considered as falling into the third category, that is "beyonder" action repertoire focused on enacting figurative realities through the design and usage of alternative infrastructures as a form of resistance, we will see that the research conducted by netCommons and reported in this Deliverable paints a quite different picture.

2.1.3. What policy can bring to CNs

This section builds on previous work from the netCommons team in identifying the role of policy for alternative communications, and the development of a shared vision as constitutive moments for a community.

The importance of policy for the fate of alternative networks was underlined in Deliverable 5.1, which delved into the history of alternative networks (Trudel et al. Dec. 2016). For instance, in the context of the case study on the US telephone Independent movement at the turn of the 19th century, we saw how the independents' demands for interconnection to the dominant network of the time, that of AT&T, resulted in the adoption of a "common carrier" status for telecommunications operators in the USA. This status would not prevent the formation of a monopoly, but it limited their power and, ideologically, cemented the idea of a universal network open to all –a notion still alive in today's debate on Net Neutrality (Nunziato 2009). For the Free Radio movements that spread in Europe in the 1960s and 1970s, legal battles and policy advocacy were also key to their struggle against the state-owned monopolies over radio broadcasting.

Closer to our immediate concerns, the deliverable also demonstrated the importance of policy advocacy for the first generation of CNs. In France, the French Data Network, France's first public Internet Access Provider (IAP) created in 1992, and its success and failures were immediately tied to changes in telecom regulation that were enacted with much bigger players in mind. The deliverable also stressed how its connection to the French "Digital Rights" milieu that formed in the mid-1990s allowed for positive cross-fertilization between advocacy activities and the development of alternative infrastructures. The other case-study on first-generation CNs was focused on Consume.net, a WiFi-based wireless community network born in London in the late-1990s. To ward off legislative proposals aiming to outlaw the formation of wireless networks over the public realm pushed by the incumbent British Telecom (BT), Consume.net partnered with existing advocacy groups to reach out to policy-makers and stop the proposal.

Another deliverable highlighting the importance of advocacy for CNs is Deliverable 1.3 on the governance of CNs (Crabu et al. June 2017). The report stressed the importance of organization processes able to produce shared objectives for the community. Now, the development of advocacy capabilities can play an important role in enacting that shared vision. By bringing into play discussions within the community on what specific

proposal it should put forward on, say, the issue of data retention, advocacy can engage a virtuous process where community members will be invited to question their own technical practices in relation to legal interpretations, and how much they conform to the proclaimed value of the community (i.e., regarding privacy).

Beyond that, through mobilizations around specific policy proposals, the community can enact itself in another field–the policy field–where its political values will need to be debated and spelled out in face of legal risks and uncertainties regarding its exact meaning and purpose. Foes and allies will need to be found, and the community as a whole will need to acknowledge the value of legal and policy skills that may not otherwise be recognized as important. Such mobilizations can help build mutual trust and recognition within the community, and between the community and its allies (Diani 1997). Among these allies to be identified, some might even be highly visible institutions who may support the claim of the CNs, thereby bringing them more legitimacy and recognition (for instance regulatory authorities, municipal and regional authorities, local businesses, libraries or international standard-making bodies like the Internet Governance Forum).

2.1.4. What CNs bring to telecom policy

Previous work by the netCommons team has pointed at length the contribution of Community Networks to the public interest. Yet, as Maria Michalis underlined in Deliverable 2.2, policy-makers at the European level tend to only see CNs as playing a "gap-filling" role, that is intervening where market actors are failing to provide (decent) connectivity (Fuchs et al. 2017). This remains true even though the EU Commission recognizes that "such projects have generally been very successful in driving the take-up rate among the end users and in building financially sustainable case" (*Investment models* 2016).

Of course, the model of community and municipal broadband networks can do much more than "filling the gaps." As Michalis insists, "it is precisely the potential of municipal and community networks to provide real competition to private commercial operators that critics focus on." Precisely because they developed mostly as a way of meeting connectivity needs that were not met by market players, they have built models that have had impressive results on a number of policy objectives associated with broadband policy.

In rural areas, a network like B4RN in Lancashire in Britain has connected more than 4000 homes, farms and other facilities to its fiber-optical network, offering speeds of 1 Gps at affordable prices, gathering members who provide capital to the cooperative through loans and community shares and an impressive amount of volunteers who help the core team to keep costs low. The take-up of 65% is impressive by industry standards. In Greece, Sarantaporo.gr has connected 14 remote villages in Northern Greece, through volunteering and help from participants from the urban wireless network AWMN, based in Athens. Many similar examples exist across Europe of rural communities managing to find ad hoc organization and financial models that allow them to serve their connectivity needs much faster and more efficiently than a market player would have done, in a much more affordable way and often without any public support coming from national authorities or EU funds.

Therefore, it matters for CNs to convey to policy-makers exact facts and documented numbers on the kinds of services that they provide to the communities, and values they foster. This need of information as an important step of advocacy, and was underlined during the workshop we organized at the European Parliament in October 2017, with the participation of several parliamentarians.

However, the success of CNs does not have to do only with the fact that they offer better broadband connectivity than incumbents. They do so in a way that brings positive externalities and social justice to the affected communities. It is for instance the case when Tetaneutral, a wireless CN based in Toulouse in Southern France, decides to offer an Internet access service at free price. While the suggested price range is between 15 and 30€ per month, the organization explains on its homepage that "members can contribute according to their means and their conscience" and that no proof will be required. More generally, many CNs give preferential subscription fees to unemployed people and students (De Filippi et al. 2015; Navarro, Baig, Freitag, et al. 2016). In Germany, Freifunk communities all across the country have been partnering with organizations defending the rights and well-being of refugees and immigrants, providing Internet connectivity to various housing cen-

ters and other spaces connected to help groups and charities. The effort was even covered by the magazine Newsweek last year. According to the magazine:

> "*The group's work with refugees in Berlin began in 2012, when refugees were occupying Oranienplatz, a public square in the Kreuzberg district, to demand better treatment. The occupation had no information technology infrastructure, and so Freifunkers decided to get the refugees internet. In December 2013, Freifunk connected its first refugee shelter, the Gerhart Hauptmann School. As the refugee crisis grew in 2014 and more shelters began opening, Freifunk expanded its network. It has connected more than 30 shelters in Berlin and more than 200 across Germany*[2]."

CNs foster social inclusion, but also strive to educate users about the information and communication technologies they use. Active volunteers regularly host workshops and seminars to train technically-minded people to discover news tools and allow them to join a development team, but also host sessions that reach out to people with very little technical skills to teach basic notions of computer security or crucial concepts such as Net neutrality.

As policy-makers need to ascertain the positive impact to be convinced, it will help them if CNs and their allies in civil society and academia manage to provide them with clear, factual information and case studies about the benefits and values of CNs.

2.1.5. Regulatory capture in the telecom sector

Advocacy, by strengthening CNs and allowing them to grow even if current laws have not been designed with their model in mind, can fuel these positive externalities. But by systematizing policy interventions both at the national, European and international levels, CNs can also bring structural change in the way telecom policy is made, by representing the perspective of the public interest.

For a long time now, telecom policy has indeed been characterized by the alliance between large telecom companies and the state. In the USA, the issue of regulatory capture[3] in the media and telecom sectors was most notably addressed by Ronald Coase in his 1959 article on the Federal Communications Commission (Coase 1959). At the time, Coase criticized the FCC's licensing procedures on spectrum allocation for being inefficient and giving too much leeway for the state to pick and choose licensees. Instead, Coase advocated for property rights and market pricing mechanisms as better alternatives for determining spectrum allocation. First in the USA and then in Europe and beyond, this line of criticism eventually sparked a wave of regulatory reforms based on proprietary incentives. These reforms gave way, among other things, to the "auction frenzy" which began in the 1990's and still lasts to this day.

But, as it was to be expected, increased privatization failed to eliminate harmful corporate influence on policy-making. To the contrary–and even though some economists might argue that this is due to the presence of still "too much" regulation–corporate regulatory capture remains a fundamental feature of regulatory economics in general, and of telecom policy in particular (Laffont et al. 1991; Laffont et al. 2001; Levine 1990).

At its most extreme, regulatory capture takes the form of outright corruption. Bribery is indeed relatively widespread in the telecom sector[4]. In the past years, cases or allegations involving politicians and companies

[2] Oscar Lopez (2016). *Underground 'hacktivists' in Berlin are connecting refugees to free Wi-Fi*. URL: http://www.newsweek.com/2016/07/22/hacktivists-refugees-online-germany-478914.html.

[3] "Regulatory capture is a theory associated with George Stigler, a Nobel laureate economist. It is the process by which regulatory agencies eventually come to be dominated by the very industries they were charged with regulating. Regulatory capture happens when a regulatory agency, formed to act in the public's interest, eventually acts in ways that benefit the industry it is supposed to be regulating, rather than the public." Retrieved December 15, 2017, from https://www.investopedia.com/terms/r/regulatory-capture.asp

[4] A recent EU report on corruption shows that businesses find corruption to be most prevalent in the construction and telecom sectors (*EU Anti-Corruption Report* 2014).

in the telecom sector have surfaced in France[5], Austria[6], Poland[7], Ireland[8], and Portugal[9]. In the Arab world, in Africa, Latin America and Asia, there are also several cases of corruption, involving European companies such as Orange/France Telecom, TeliaSonera, Siemens and Alcatel-Lucent (Sutherland 2012).

Apart from its illegal manifestations, regulatory capture generally takes more subtle forms, namely a bias on the part of regulators in government or national regulatory authorities (NRAs) leading to lenient regulations, undue subsidies, or decisions unduly favoring the regulated firms. Such bias often stems from the mutual acquaintances or even friendships built over time by attending the same universities, meeting regularly to discuss the regulatory issues in which firms have a stake in, but also as a result of individuals shifting back and forth from government to industry to work as an executive or lobbyist – a phenomenon known as the "revolving door"[10].

Bias is also due to the fact that governments often retain golden shares in their former monopolies, as communication networks remain a strategic asset, a purveyor of taxes and employment, and can also be a non-negligible source of revenues[11]. All of this leads to what a French minister euphemistically defined as "friendly pressure" on business leaders in the telecom sector[12], but it might also lead to political interferences in the functioning of the National Regulatory Authorities (NRA), which researchers have found to undermine investment by introducing instability and uncertainty in the regulatory framework (Cambini et al. 2011).

Meanwhile, grassroots and non-profit networks, who provide flexible and cheap Internet access to local communities in spite of the hostile regulatory framework, have remained well below the policy radar. Especially in the past five years, the narrow priority of many policy-makers has been to move towards greater consolidation in the telecom sector so as to facilitate the advent of powerful pan-European operators, as incumbent firms have been calling for competition regulators to further ease oversight on mergers[13]. According to trade groups like ETNO, dismantling pro-competition policies will help spur investment and innovation (Fuchs et al. 2017). According to a recent report by the Commons Network, this speaks to a wider issue with the EU policies:

> "*At the moment, almost all EU economic policy is focused on the promotion of purely commercial actors and the unidimensional view of people having the exclusively individual aims of selling, owning or buying goods or services. The dominant paradigm is rarely evaluated by applying clear indicators of social and ecological well-being to judge the success of an economic endeavour.*" (Bloemen and Hammerstein 2017).

Against this reality, it is clear that telecom policy can greatly benefit from forms of advocacy that go against

[5] French Polynesia – Gaston Flosse, convicted a second time of corruption, wants the appeal trial to be heard away from Tahiti. (2013, July 25). Against corruption in telecoms. Retrieved from http://anti-corruption-telecoms.blogspot.fr/2013/07/french-polynesia-gaston-flosse.html

[6] Prodhan, G. (2013, July 18). Trial over Telekom Austria payments to rightist party starts. Reuters. Retrieved from http://www.reuters.com/article/2013/07/18/telekomaustria-corruption-trial-idUSL6N0FO10K20130718

[7] Ex-president of Kulczyk Holding arrested for corruption. (2012, June 13). Warsaw Business Journal. Retrieved May 11, 2014, from http://www.wbj.pl/article-59485-ex-president-of-kulczyk-holding-arrested-for-corruption.html?typ=ise

[8] Mansfield, I. (2012, July 18). Irish High Court to Hear Corruption Allegations Over a 1995 GSM License Award. cellular-news. Retrieved from http://www.cellular-news.com/story/Regulatory/55450.php

[9] Anacom favoured Portugal Telecom in DTT. (2012, October 31). Telecompaper. Retrieved from http://www.telecompaper.com/news/anacom-favoured-portugal-telecom-in-dtt-thesis\OT1\textendash905308

[10] For instance, the current CEO of Orange, Stéphane Richard, is the former chief of staff of then French Minister of the Economy Christine Lagarde (now managing director of the International Monetary Fund). In Spain, incumbent operator Telefónica hired several former high-ranking public officials as consultants, such the former Minister of the Economy, Rodriguo Rato, also head of the IMF from 2004 to 2007, who has also incidentally been hauled into court for his mismanagement in the banking sector. Day, P. (2012, July 4). Former IMF chief Rodrigo Rato faces court probe. Reuters. Madrid. Retrieved from http://www.reuters.com/article/2012/07/04/us-bankia-rato-idUSBRE8630MU20120704

[11] In the past years, the French government, for instance, has usually drawn around €1 billion annually from its 26% share in France Telecom/Orange.

[12] Quoted in: French government says will pursue telecom market consolidation. Reuters. Retrieved from http://www.reuters.com/article/2014/04/09/us-france-telecomunications-government-idUSBREA3824T20140409

[13] Based on the studies commissioned to consultancies such and Standards & Poor or the Boston Consulting Group, incumbent operators across Europe argue that a maximum of three telecom giants should compete against each other in European markets. See Schechner, S. (2014, March 11). Europe's Telecom Companies Push to Merge. Wall Street Journal. Retrieved from http://online.wsj.com/news/articles/SB10001424052702303795904579433113580321016

the interest of incumbent actors and promote alternative models for the deployment and operation of telecom networks. CNs have both the expertise and legitimacy to join in technical and legal debates over broadband policy, to make the underlying political issues more salient, and to bring an informed view of the effect of existing policies on the ground. In sum, they bring a dissenting view that can only open up new policy paths, and stimulate a debate to ensure that telecom policy stays in tune with the public interest.

2.2. Methodology: analytical framework and research process

The analytical framework used in this report is informed by the sociology of social movements, and in particular the sub-current of "contentions politics" led by Charles Tilly, Sidney Tarrow and Doug McAdams. A word of caution though: One legitimate criticism of the approach pioneered by Tilly, Tarrow and MacAdam is its sometimes overly mechanistic and deterministic conceptions of the social world. By aiming to offer a "grand synthesis" (Lichbach 1997), their approach sometimes tends to draw generalizations that can be applied in ways that overlook the inextricably complex nature of the society and the fundamental uncertainties that preside over politics.

For instance, while political opportunity structures play a role in shaping advocacy tactics and their outcomes, they are also shaped by very contingent factors. Woll has for instance shown that the political stance and recommendations of corporations engaging in lobbying activities are endogenous to the political process, and cannot be deducted *a priori* (Woll 2008). They also depend their own assessments of the chances of success of a given policy option–which may have emerged "out of the blue," without the actors being able to foresee that it would be taken up as a viable policy option by law-makers–but also on the constant re-evaluation of the multilevel bargaining process involved in policy-making. Some of these firms –and this is probably true of former telecom monopolies which Woll takes as one of her case-studies– act as real insiders, and as such they may be able to impose their own preferences onto the policy-making process. But even for these well established players, uncertainty exists, and so their advocacy tactics will need to be constantly adjusted to account for the risks associated with such uncertainty. In a policy process often dominated by corporate actors like telecom policy, creating that kind of uncertainty for established players can in itself be a goal for grassroots challengers.

In terms of research process, this deliverable, especially the case studies, is the product of a collaborative research between the netCommons team and members of various Community Networks. Freifunk, Guifi.net, as well as the Federation FDN were asked by email to document their advocacy activities. They did so by providing links to online material and providing qualitative assessments of some of these advocacy efforts. T hese data were complemented by other material gathered through desk research, but also through a small number of interviews to clarify certain aspects. Part of the CNRS team also engaged in observant-participation, contributing to the effort of Community Networks to draft and publicize the open letter sent in March 2017 to EU policy-makers, and helping them engage in the policy-making process around the European Code for Electronic Communications by taking part in consultations, liaising with advocacy groups devoted to the protection of fundamental rights in the digital environment.

3. Case studies: survey of past and ongoing advocacy practices

This section is centered around the advocacy activities of Freifunk, Guifi.net and Fédération FDN to survey their engagement as representatives of EU CNs with public authorities, including EU and national regulators, lawmakers, standard-setting bodies as well as courts.

As much as possible, based on the data we had gathered and a few interviews, we have tried to pay attention to the profiles of CN people involved in those efforts (background, skills, role in the community, prior experience in "lobbying", etc.), as well as allies in civil society (pre-existing coalitions on digital rights in previous campaigns related to telecom, privacy, copyright, collaborations with other NGOs, market actors, etc.). The goal here is to document key interactions between CNs and policy makers, to give an idea of how they emerged and unfolded, what action repertoires were used and what their outcomes were.

3.1. Local advocacy

To build local networks, local authorities are often the first essential stakeholder for CNs. And in some sense, this is where the structure of opportunity is the most favorable to CNs, where power structures are less stable and more sensitive to their advocacy strategies, as illustrated by our two case-studies below.

3.1.1. Guifi pressuring the Catalan government over access to public fiber

In 2009, in a small rural village located between Barcelona and the Pyrenees, Guifi's co-founder Ramon Roca together with a group of friends started interconnecting pig farms with 1 gigabyte links between them. After setting up this local, autonomous network, they started looking for a gateway connecting them to the regional and global networks[1].

Two public backbone networks passed through the village, according to Roca. One was owned by the Spanish government. The Guifi volunteers were told that they would have to pay a fee of 500 000 € to rent out access to that cable. But they had learned that another public infrastructure existed, this time owned by the Catalan government. So they got in touch with the Catalan authorities, which first denied that they even had a backbone in that location. Confronted with the fact that they did own the cable, the authorities were now open to the idea of helping Guifi to interconnect on fair conditions, but the discussions dragged on for months, allegedly because regulation prevented offering access to citizen-driven initiatives.

In 2012, three years after the beginning of the project, the Guifi volunteers were still waiting. So they decided to increase the pressure on the Catalan authorities and test their goodwill. They announced that they would hold a "tractor protest": The next Sunday, farmers in the area would drive their tractors on public roads to slow down the traffic and delay people driving from Barcelona to ski resorts in the Pyrenees. The call to protest came as a surprise to the authorities who pledged to speed up the process, and a few months later, the local Guifi network was finally interconnected with the public network, thus benefiting from an affordable gateway to the rest of the Guifi networks and the broader Internet.

[1] This case builds on a workshop presentation by Ramon Roca in Brussels on October 17th, 2017 and a follow-up exchange by email.

3.1.2. Freifunk's interactions with local policy-makers

Apart from these applied efforts to develop a prototype supporting the proposal of a spectrum commons in order to experiment and test it concretely, more "traditional" formats of advocacy in regional parliaments took place to support Freifunk, and were documented on two occasions.

In the regional Parliament of Nordrhein-Westfalen (sitting in Düsseldorf), a local Pirate-Party elected member, Lukas Lamla, gave a speech[2] in 2014 to explain the new opportunities brought by free WiFi access point beyond Freifunk's original project connecting neighbors. He stressed in particular the importance of free networks for people who can't afford to pay for a connection, for refugees, for tourists visiting the area, etc. Therefore, he made clear to the local parliament what social values Freifunk defended as a digital commons in a way which would appeal to all political parties: From social inclusion to economic innovation, supporting CNs could be a cross-party project, bringing together members of the local parliament beyond political differences.

In 2010, Jürgen Neumann of Freifunk had already made a presentation[3] in front of the Berlin regional Parliament Committee for Administrative Reform, Communication and Information Technology, explaining the reasons behind the development of Freifunk in 2003. He described the particular mesh connection between access points, which cost between 25 and 40 Euro, to join and extend the network. After explaining the technology, he mentioned that Freifunk had extended first in large cities, and to regions without DSL. He also mentioned Freifunk's cooperation with South Africa and India, underlying that these structures are developed without one having to bear the entire cost, and involving the population in order to be cheap and successful. Finally, he talked about Freifunk's technical partnerships with research institutions, and said it was looking forward to developing partnerships with municipal and private actors of the Internet economy while involving local populations.

Questions which followed from Members of the local Parliament were related to "technological sovereignty",[4] and the fact that the generalization of flat rate subscriptions for broadband access was not a valid argument to deny the utility of alternative networks for those who don't enjoy such premium services. It was also noted that Freifunk service was a much cheaper and faster infrastructure than then-3G Universal Mobile Telecommunications System (UMTS). The question of the "cooperation versus competition with existing providers" was also discussed. Regions with underprivileged population would not give a return on investment to companies and would therefore be left behind. Municipalities could participate and join Freifunk by creating access points in public buildings, such as libraries, public parks, or street lightening equipment to provide possible missing links between private houses windows and balconies. The point was to explain that CNs are not competing, but complementary to the commercial market actors. The presence of a representative of the association of software, information and communication industry at this hearing was also the opportunity to discuss public-private partnerships.

The conversation also pointed that "authentication vs. anonymous browsing and filtering" dilemma was reflecting political choices more than the output of technical configurations, and that the choice of an open internet should also be supported politically. The issue of VPN–widely used across Freifunk's infrastructure–was also addressed to clarify conceptual misunderstandings related to authentication, data security and confidentiality, and to state that it was possible and legitimate to equip major universities, hospitals and companies with VPN. In the same vein, security and data protection were also mentioned: A public network cannot be encrypted *per se*, it was therefore useful to clarify that encryption takes place between a sender and a receiver of data, and that the underlying traffic medium, whether landline or wireless, was irrelevant.

The episode was a sign of Freifunk's growing recognition by local policy-makers.

[2] Video (in German): https://www.youtube.com/watch?v=aMgKDYYoBMY. Transcript (in German): https://www.piratenfraktion-nrw.de/2014/09/lukas-lamla-zum-ausbau-von-freiem-w-lan-in-nrw/

[3] https://www.parlament-berlin.de/ados/16/VerwRefKIT/protokoll/vrk16-052-wp.pdf

[4] On the concept of technological sovereignty, see: *Technological Sovereignty Vol.2* 2017.

3.1.3. Freifunk requesting access to TV "white spaces": from an open letter to a pilot project

A topic which Freifunk unfortunately has no capacity to work on actively is frequency policy and open spectrum, an extremely complex topic in direct need of grassroots lobbying. Freifunk has been arguing that there should be more common and license-exempt frequencies bands (especially in the lower bands with high propagation properties) or options to use so-called "TV white spaces" (those frequencies allocated to TV and radio broadcasters but which are left unused), rather than leaving them to the sole usage of commercial, incumbent operators (in particular major telecom operators). Otherwise, the consequence is that individuals, communities like Freifunk but also entire industries will end up depending on these actors, rather than building autonomously on a "spectrum commons"[5].

In 2014, Freifunk raised awareness on this complex topic by replying through an open letter to a EU consultation, changing the framing of the debate on spectrum policy in order to present alternative proposals. This was followed by a regional pilot project explaining how to manage spectrum of the TV white spaces as a commons, which also gave way to a longer policy brief. More traditional interventions in local parliaments also took place, as we will see in next section.

According to Wikipedia[6]:

> "*White spaces refer to frequencies allocated to a broadcasting service but not used locally. National and international bodies assign different frequencies for specific uses, and in most cases license the rights to broadcast over these frequencies. This frequency allocation process creates a bandplan, which for technical reasons assigns white space between used radio bands or channels to avoid interference. In this case, while the frequencies are unused, they have been specifically assigned for a purpose, such as a guard band. Most commonly however, these white spaces exist naturally between used channels, since assigning nearby transmissions to immediately adjacent channels will cause destructive interference to both. In addition to white space assigned for technical reasons, there is also unused radio spectrum which has either never been used, or is becoming free as a result of technical changes. In particular, the switchover to digital television frees up large areas between about 50 MHz and 700 MHz. This is because digital transmissions can be packed into adjacent channels, while analog ones cannot. This means that the band can be "compressed" into fewer channels, while still allowing for more transmissions. (...) Various proposals, including IEEE 802.11af, IEEE 802.22[2][3] and those from the White Spaces Coalition, have advocated using white spaces left by the termination of analog TV to provide wireless broadband Internet access. (...) Ofcom, the licensing body of spectrum in the UK, has made white-space free to use.*
>
> *Spectrum is deemed available, or unavailable, to unlicensed usage depending on criteria that are regulator specific. (...) Regulations on white space spectrum utilization are of extreme importance since they pose limits to the amount of white space spectrum that can be reclaimed by White Space technology for wireless broadband access. Having a certain degree of spectrum accessibility is crucial to the relevance and the successful adoption of TVWS as a technology. (...) The amount of white space that can be reclaimed for broadband access is directly related to regulations governing white space access in a country. Currently, spectrum regulators from several countries have determined the set of rules to access white space in a secondary manner and which database operators must follow in order to be authorized for service provision. Particularly, in the US, the FCC had originally limited secondary access to white space spectrum based on a fixed transmit power rule. TV White Space was available to secondary devices provided that these kept a safe distance from the broadcaster contour, depending only on the antenna's altitude and not transmit*

[5] This information was gathered after email exchanges with Freifunk members who provided information on their advocacy experiences documented by the links provided in this section. Since the topic is rightly identified as complex, explanations from Wikipedia have been inserted.

[6] https://en.wikipedia.org/wiki/TV_White_Space_Database

> *power. This has been shown to significantly affect the amount of white space available in a country. FCC regulations on power emissions were later modified to accept a set of limited transmit powers. Several other factors also directly impact white spaces. How to process topography and the adopted radio propagation model, both being determined by regulations, have been recently shown to play a key role on the degree of white space availability of a country.* "

In order to raise awareness about the topic of open spectrum and the possibility to open access to these white spaces, a group of international experts gathered by Elektra, a Freifunk activist, took advantage of a public consultation by the EU on the Future of the UHF TV Broadcasting Band (ultra high frequency radio channel for over-the-air transmission of television signals[7]) to write a longer letter[8]. Public consultations are regular opportunities where the EU Commission asks lobbyists and civil society to express their wishes and issues during a reform. Often, the format of the response to the consultation is closed[9], but nothing prevents actors from writing a longer response in an open format.

In its open letter published in 2015, Freifunk explained the technical risk of degradation of TV reception for citizens and how "the benefits to society of new Internet access options at UHF are likely to exceed the cost to end-users of more robust DTT (Digital terrestrial television) receivers" (section 2), and the economic advantages of repurposing the available broadband (section 3 of the open letter).

The consultation's question on regulatory choices was already closing the range of possible policy options: "Should there be a common EU deadline for safeguarding primary use of the 470-694 MHz band for DTT and further use for wireless microphones and other wireless audio equipment? (Yes/No) Please provide justification of your answer on a common EU deadline to safeguard existing uses." According to Freifunk:

> "*This question invites answers justified by a false assumption: if the primary aim of spectrum management were to "safeguard existing uses", we would still be watching analogue television (probably without colour) and sending text messages via Morse Code.*"

Rather than responding to an inadequate question, Freifunk explained why "more UHF spectrum should be made available for Internet access and two-way data communication as quickly as possible". And instead of only replying to the question put forward in the consultation ("Do you support flexible downlink-only use of the 470-694 MHz band also for wireless broadband services, which safeguards primary use of this band for DTT according to national circumstances?"), the use of an open format allowed the presentation of an alternative proposal. Indeed, Freifunk suggested instead to allocate "a significant part of the spectrum between 470 and 694 MHz for license-exempt bi-directional broadband communications (e.g., 100 MHz near 500 MHz), with a power limit of 0.5 W, mandatory state-of-the-art politeness protocols, and mutual/cooperative power control in case of several users present". Indeed, they explained how license-free data communication potential is limited by regulation, and that "users would benefit from the availability of more and better bandwidth for Internet access in spectrum managed as a commons" and how this would avoid "band congestion ("tragedy of the commons") and "revive Europe's lead in wireless technology".

The open letter led to a local project at the regional level[10], a proof-by-concept to demonstrate what would be allowed by such a change. The pilot project was presented at several conferences, and a longer policy brief further explained how innovation could be supported through open spectrum (commissioned paper[11]). The project was developed in partnership with *Medienanstalt der Länder Berlin und Brandenburg*, a media institution of the region which leads research and awards broadcasting licenses to private TV and radio stations

[7] https://en.wikipedia.org/wiki/UHF_television_broadcasting

[8] http://www.elektrad.info/download/Response-to-Lamy-Report-on-future-use-of-the-UHF-band_Elektra_Forge_Horvitz_List_Meinrath_Struzak_Weber.pdf

[9] See for instance the survey used in this consultation: https://ec.europa.eu/eusurvey/runner/PublicConsultationLamyReport2014

[10] Pilot project on the proposal to use TV white spaces as a commons are documented here (in German): https://wiki.freifunk.net/MABB:TVWS, https://femgeeks.de/freifunk-im-tv-whitespace/ and slides in English are available here: https://wiki.freifunk.net/images/5/54/Freifunk-in-TV-Whitespace2.pdf

[11] Policy paper (33 pages in German): https://foerderverein.freie-netzwerke.de/Policy_Brief_EDA_Deutschlands_Mobile_Datennetze.pdf

and oversees them with regard to compliance with regulatory guidelines (advertising, protection of minors, etc).

Freifunk documented this local pilot project experimenting the use of TV-Whitespace in the neighborhood of Berlin-Friedrichshain[12]. At the time, because of the television digitisation process, many of these UHF TV bands were becoming available for broadband. More spectrum of this TV space for the commons would have led to cost savings and spectral efficiency. But in Germany (other EU Member States engaged in a similar course of action), the "digital dividend" was eventually auctioned for 5 billions euros in 2015 to Telefonica, Telekom Deutschland and Vodaphone, leading to a privatisation of a public resource.

Instead, Freifunk's proposal consisted in a "dedicated license-exempt WiFi band in the UHF range for everyone": The "public resource television spectrum remains a public property" and they "could just change the frequency band of existing WiFi solutions and start to use it". In the course of this experimentation, Freifunk developed prototypes for this type of signal and documented its work. It reported that this prototyping worked well, and could be implemented in other unused bands: "the opportunity to use additional frequency bands as an addition to the overcrowded spectrum is great and should be communicated also politically".

3.2. National Advocacy

3.2.1. FDN engagement with French telecom regulator on Net neutrality

In 2007, Benjamin Bayart had been the president of FDN, a French non-profit IAP, for almost ten years. At the time, he was busy overseeing the migration of FDN's Internet traffic from dial-up connections to ADSL. His tenure as FDN president and his public-speaking skills had made him quite famous in the small milieu of free software activists in France. His conference speech given in Amiens in 2007 comparing the evolution of the Internet into a Minitel 2.0 –to refer to the recentralization of the network because of its oligopolization– has become "cult" among digital rights activists in France[13].

Three years later, a new digital rights advocacy group had surfaced in France: La Quadrature du Net (LQDN). Co-founded by people also active in the digital rights field[14], Bayart acted as the de facto treasurer of the organization and its main expert on telecom regulation. In 2009, two hot issues mobilized La Quadrature du Net: the "three-strike" HADOPI law in France, which purported to tackle illegal file-sharing, and the Telecoms Package at the European level. At the EU Parliament, it fought two distinct threats (Horten 2010). One was mounted by copyright-holders, who were trying to pass amendments that would sanction the contentious three-strike system under discussion in France (T. Meyer et al. 2012). The other came from amendments put forward by US telecom operator AT&T, which tried to legitimize a form of discrimination in traffic management through EU law, as a way to better fight the proponents of Net neutrality in the USA where the debate was getting traction.

These amendments were defeated, as was La Quadrature's demand for clear and positive Net neutrality protections. But this had the effect of leading the EU Commission to adopt a "declaration on the open Internet"[15]. That is in a nutshell how the debate on Net neutrality was "Europeanized". It was subsequently taken over by national regulatory authorities (NRAs) in Member States, which followed the French one, the Arcep, to conduct consultations in this context[16].

Bayart had been advising LQDN on the issue, and helped explain the concept to a broader audience in France through various public interventions. But he also led FDN to engage with policy-makers, adding the voice of

[12] https://wiki.freifunk.net/MABB:TVWS

[13] Benjamin Bayart (2012). *Internet libre, ou Minitel 2.0 ?* URL: https://framablog.org/2008/11/21/benjamin-bayart-internet-libre-ou-minitel-20/.

[14] Including one of the authors of this deliverable.

[15] *Commission declaration on net neutrality* (2009). URL: https://ec.europa.eu/digital-single-market/en/news/commission-declaration-net-neutrality.

[16] Benjamin Bayart (2010c). *Rencontre avec l'ARCEP sur la neutralité du réseau*. fr. text. URL: http://blog.fdn.fr/?post/2010/01/12/Rencontre-avec-l-ARCEP-sur-la-neutralit%C3%83%C2%A9-du-r%C3%83%C2%A9seau.

the non-profit IAP to that of other civil society actors like LQDN. As the French NRA tried to made sense of its new prerogatives to regulate notions like "minimal Quality of Service" requirements, created by the newly adopted Telecoms Package, but also of the stakes associated with Net neutrality. Both LQDN policy officers and FDN's Bayart gave evidence in front of Arcep's working group on Net neutrality in early 2010. A few months later, he published FDN's response to the consultation of the NRA on the issue, noting that the crucial concepts were now understood and that the general analysis of the economic and political issues attached to Net neutrality were clearly exposed in the document put forward in the consultation[17].

But the NRA was not the only public body trying to establish a policy doctrine on Net neutrality. So were the Parliament and the government. And in the process, these institutions also opened their own consultations, to which Bayart responded in the name of FDN[18]. In the documents, Bayart corrected misconceptions about the nature of Net neutrality. One particular concern was the oft-repeated notion that Net neutrality had standing for only "lawful content" flowing through networks. According to Bayart, this way of approaching Net neutrality implicitly meant that the network itself, and those operating that network, could reprogram the network to teach it to spot and block "unlawful content", with the risk of false positive and privatization of justice to determine the legality of an activity. For Bayart, in Europe where the protections for freedom of expression are traditionally weaker than they are in the United States, claiming–as the government did–that Net neutrality only applied to "lawful content" seemed to imply that automatic means could be used to block content in real-time, with very harmful consequences for the rule of law and freedom of expression.

In essence, Bayart worked to ensure than Net neutrality would be framed not only as an issue of economic regulation (with two opposing camps: telecom operators on the one hand, online service providers on the other), but also as a civil liberties issue[19]. And although Arcep, another key stakeholder, seemed reluctant at first, this framing eventually found its way in the official positions of key centers of powers. In the process, Bayart–whose expertise was especially appreciated by Arcep policy officers in charge of the topic, to the point of inviting him to be on a panel of a large international conference organized in the Spring of 2010–also helped deconstruct the arguments put forward by telecom operators to justify the adoption of non-neutral pricing schemes, and in particular the idea that online service providers were unfairly extracting value off "their" networks and "their" subscribers, or that congestion was hampering the development of the digital economy, or that they needed to develop non-neutral pricing schemes to be able to invest in fiber-optic networks. Although balanced, in general the results of these consultation processes were overall positive for civil society groups like FDN or LQDN: even though their proposed legal solutions to protect Net neutrality were seen as premature, the framing of the issue generally espoused their own conceptions.

But even to close observers, the form of political advocacy that Bayart and others engaged in during the three-year-long political discussions that eventually led to the adoption for specific Net neutrality rules at the EU level (see below), was not done in defense of CNs per se. It was a defense of a conception of the Internet as a neutral network, where that design principle actually acted as a technical proxy for the rights and freedoms of people using the Internet. In the report he wrote and during his first encounter with the Arcep working group on Net neutrality, in early 2010, Bayart had mentioned various issues relevant to French CNs, and FDN especially. In particular, he pointed to the fact that the roll-out of fiber-based local loops was re-creating a de facto local monopoly over these last-mile infrastructures, and that the latter needed to be regulated as such. Also, he stressed that public networks built with taxpayer money remained impossible to interconnect with for small alternative operators like FDN. In sum, under the issue of Net neutrality, Bayart was able to stress the

[17] Benjamin Bayart (2010d). *Réponse de FDN à la consultation sur la neutralité du réseau*. fr. text. URL: http://blog.fdn.fr/?post/2010/05/17/Reponse-de-FDN-a-la-consultation-sur-la-neutralite-du-reseau.

[18] Benjamin Bayart (2010a). *Aidons les députés UMP sur la question de la neutralité du réseau...* fr. text. URL: http://blog.fdn.fr/?post/2010/02/24/Aidons-les-deputes-UMP-sur-la-question-de-la-neutralite-du-reseau...; Benjamin Bayart (2010e). *Réponse de FDN sur la transposition du paquet télécom*. fr. text. URL: http://blog.fdn.fr/?post/2010/06/01/Reponse-de-FDN-sur-la-transposition-du-paquet-telecom; Benjamin Bayart (2011). *La contribution de FDN à la mission d'information parlementaire sur la neutralité des réseaux*. fr. text. URL: http://blog.fdn.fr/?post/2011/02/17/contribution-fdn-mission-parlementaire.

[19] Benjamin Bayart (2010b). *Colloque de l'Arcep - Quasi-neutralité*. fr. text. URL: http://blog.fdn.fr/?post/2010/04/15/Colloque-de-l-Arcep-Quasi-neutralite.

importance of other issues in telecom regulation resulting from a lack of competition, and which had a similar effect on market players and users as infringements to Net neutrality. But, as the debate matured over the months, the wider issues of direct relevance of French CNs was sidestepped.

A major outcome of this mobilization, however, was the fact that Bayart established a strong visibility in this debate, and his expertise brought him credibility. These consultations, blog posts, media relay and conference speech given on the issue of Net neutrality during this period sparked much interest and led people to engage in political activity by taking a more active role at the national or local level in the CN movement in France. Almost all of the CNs that existed around 2010-2011 and participated in the founding of the Federation FDN mentioned Net neutrality as one of their core values, and the later principle was also enshrined in the Federation's charter. The defense of Net neutrality came to define the French CN movement as a whole, with the idea that these alternative infrastructures acted as spaces of autonomy and resistance to the growing commodification of the global network. Today, we see a similar process unfolding in the USA, where the most recent announcements aiming to dismantle existing Net neutrality regulation is sparking interest in CNs as an alternative to the power struggles between national regulators, telecom operators and online service providers[20].

3.2.2. The 'Freifunk not fear' campaign on secondary liability in Germany

In 2010, Freifunk started a campaign against the *Störerhaftung* (secondary liability) and initiated "Freifunk statt Angst" (http://freifunkstattangst.de/), a campaign website which means literally "Freifunk (libre or free radio communication) not fear". Indeed, the legal mechanism would play with the fear of people who would receive copyright infringement notices and would rather pay than risk a law suit.

The WLAN *Störerhaftung* legal mechanism is described in the deliverables D4.1 and D4.2 (Dulong de Rosnay et al. Dec. 2016; Giovanella, Dulong de Rosnay, et al. Jan. 2018). It was framed and denounced by this campaign "as a unique legal situation worldwide, according to which a connection owner is liable for Internet access". As Freifunk claimed:

> "Störerhaftung *means that Germany has just on average 2 freely accessible hotspots per 10,000 inhabitants. By comparison, in Britain, there are almost 30 per 10,000 inhabitants. The* Störerhaftung *is also a money printing machine for the industry of warning copyright infringement letters, and leads to the fact that professionals, shops and private individuals often do not make their wireless access freely accessible and publicly available, for fear of having to be liable for any legal violations of third parties. That needs to change!*[21] "

This campaign website hosted several actions and the last post, from June 2017, underlines the success with a change of regulation and the end of this liability. The NGO Digitale Gesellschaft joined actively the campaign in 2015[22]. Among other actions, they reported and advocated during several lawsuits[23], including the well known MacFadden case that is developed in detail in Sec. 3.4.1. They developed a generator of answers to the warning letters sent by copyright-holders[24]. People who would have received a copyright infringement notice could use this typesetter to generate a reply letter in five steps, informing the firm of the illegality of the warning.

In 2012, Freifunk concluded a three-year development phase by launching the Freedom Fighter Box[25]. For this initiative, Freifunk benefited from some routers and VPN tunnels sponsored by a provider in Sweden for a campaign against disruption liability and for anonymous Internet access. These VPN tunnels were pre-installed in the free software on each of the Freifunk Freedom Fighter boxes. The router is thus simply connected via

[20] Sammi-Jo Lee (2017). *In the battle for net neutrality, can co-ops keep the internet open and democratic?* URL: https://www.thenews.coop/124603/topic/technology/battle-net-neutrality-can-co-ops-keep-internet-open-democratic/.

[21] Translation of the presentation on the homepage: http://freifunkstattangst.de/

[22] http://freifunkstattangst.de/2015/09/24/freifunker-und-digitale-gesellschaft-starten-kampagne-zur-wlan-stoererhaftung/

[23] http://freifunkstattangst.de/category/urteile/

[24] https://abmahnbeantworter.ccc.de/

[25] http://freifunkstattangst.de/2012/06/14/aktion-gegen-storerhaftung-anonym-im-wlan-an-offentlichen-platzen-mit-freifunk/

LAN cable to the existing DSL router, then automatically establishing a VPN tunnel over the Internet and providing an open and secure wireless network readily available. These boxes work exclusively in access-point mode and offer an open WLAN. They were then distributed in urban public spaces, like coffee shops and pubs, to allow for open and anonymous Internet access.

When a user starts browsing after connecting her computer or smartphone to one of these free radio access points, the following landing page appears: http://anon.freifunk.net. On the page, one reads:

> "*Users and operators remain anonymous. The entire data traffic from the open WLAN is tunneled via VPN to Sweden to IPREDATOR and is sent back with an IP address of the provider. Thus, WLAN surfers and DSL owners remain completely anonymous.*[26] "

During this campaign, Freifunkers were also asked for help at a crucial moment in the law-making process in 2015[27]. To influence law-makers, they wrote hundreds of letters to members of parliament based on the template provided[28] and a website was set up to help participants identify their elected representative[29]. They also debated with policy-makers in person, and a petition[30] was launched in 2016[31], supported by an anti-Störerhaftung coalition[32]. It eventually succeeded in amending the law in May 2016[33]. But according to a legal analyst at Freifunk we interviewed, ambiguity remains:

> "*The German law passed in the middle of 2016 only clarified that WiFi owners cannot be held liable for a network-user's wrong-doings as far as damages for the actual wrong-doing are concerned. But the law did not say anything about the liability concerning injunctions aimed at ending/preventing the wrong-doing. The Social Democrats only managed to add a remark to the law's recitals, saying that they hope courts will interpret the law in a way that exempts wi-fi owners from such injunctions. The recitals are not binding, though–which is why this wasn't anything more than a pious wish.*"

This is one of the reason why Freifunk, among others, was so keen of seeing the issue of secondary liability taken up by the Open Letter of March 2017, in order to fix the problem at the EU level. But despite the shortcomings of the German law, this campaign which spanned across several years represents a landmark case, whereby Freifunk succeeded in organizing a widespread mobilization, and used technical circumvention techniques as well as various advocacy action repertoires aimed at changing the law.

3.2.3. Freifunk's campaign to change the German tax code

Freifunk also led a campaign in 2017 regarding their non-profit status and benefits to the public (Gemeinützigkeit). A change was needed in German tax code, because building infrastructure and providing access is actually excluded from the provisions of the tax code that benefit non-profits[34].

The campaign to change the tax code made its way through the "Bundesrat" upper chamber of Parliament[35]. A draft law amending the tax code in order to recognize the charitable nature of Freifunk[36] was also produced in the process. This 14 pages-document introduced the problem and offered a solution to waive tax law issues preventing Freifunk to benefit from tax-exempt status. Unfortunately, the bill was blocked in Bundestag lower chamber of the Parliament by the conservatives (CDU/CSU). They delayed the discussion in the committee until

[26] Translation from the following webpage above.
[27] http://freifunkstattangst.de/2015/03/10/wir-brauchen-eure-hilfe-helft-mit-die-stoererhaftung-fuer-wlans-zu-stuerzen/
[28] https://pad.freifunk.net/p/stellungnahme-tmg-abgeordnete
[29] https://www.abgeordnetenwatch.de/
[30] https://www.change.org/p/stoppt-die-abmahnindustrie-wlan-st%C3%B6rerhaftung-abschaffen-mehrinternet/u/16638533
[31] http://freifunkstattangst.de/2016/05/30/wlan-stoererhaftung-petition-fordert-abschaffung-ohne-hintertueren-fuer-abmahnindustrie/
[32] https://digitalegesellschaft.de/2016/05/wlan-koalition-halbe-strecke/
[33] Fabian Reinbold (2016). *Störerhaftung: Union und SPD einigen sich auf WLAN-Gesetz*. de. URL: http://www.spiegel.de/netzwelt/netzpolitik/stoererhaftung-union-und-spd-einigen-sich-auf-wlan-gesetz-a-1091731.html.
[34] http://www.vereinsbesteuerung.info/internetverein.htm.
[35] http://www.bundesrat.de/DE/service/mediathek/mediathek-node.html?cms_id=7070687 (TOP 95)
[36] https://dip21.bundestag.de/dip21/btd/18/121/1812105.pdf

the federal elections of September 2017, so discontinuity applied and the proposal was dropped. This happened despite public calls were gathers on a dedicated website to support[37] this recognition of local initiative in the tax regulation.

Another part of this campaign was dedicated to improving the funding situation aimed at enhancing public funding mechanisms. Freifunk took part in workshops run by Wikimedia[38], which try to find new, leaner, less bureaucratic, decentralised means for providing public funding to non-profit digital initiatives, especially those who do not have employees to fill in long application forms or go through complex accounting processes.

3.3. EU advocacy

3.3.1. Putting Open Spectrum at the policy table

In the early 2000s, given the immediate success of WiFi protocols, the notion of unlicensed spectrum was popularized among the small circles of experts in telecom policy interested in the development of wireless networks. Around 2010, at La Quadrature du Net, the French digital rights group, some had read Yochai Benkler's writings on access to the spectrum commons and how it could boost the development of alternative networks (Benkler 1998; Benkler 2006). As Benkler summed up more recently:

> "*User-owned and commons-based infrastructure are one major space of intervention. Perhaps the clearest design targets are the emerging wireless networks necessary to ubiquitous computing, including both handheld networks and the Internet of Things (IoT). For many years, proprietary spectrum allocations owned by wireless carriers–coupled with proprietary cell towers–were deemed necessary for mobile computing. It has now become clear, to the contrary, that unlicensed wireless allocations (spectrum commons) running over small-cell networks, owned by diverse organizations and individuals, are likely to be the infrastructure of first and last resort for data, with large-cell proprietary spectrum networks offering the backup for highly mobile, latency-sensitive communications*[39]*. The main challenge to leveraging this fact into a decentralization of power over wireless networks is to design technical and contractual systems that can permit unrelated individuals to share access to their diversely owned wireless spots. With the exception of relatively few community networks, most widespread WiFi networks are operated by companies like BT Group's system in the United Kingdom or Comcast's emerging model in the United States. Nothing technical prevents these companies' consumers from sharing their access with each other without the carrier. The constraints, instead, are contracts and social habits. One of the core design targets of any future effort to keep the Internet open, decentralized, and resistant to control is to develop technically instantiated mechanisms to achieve user-owned and -shared capacity that offers no proprietary point of control for centralizing actors.*" (Benkler 2016).

A useful source of information at the time was Robert Horvitz. Horvitz has been involved in various aspects of spectrum policy for 35 years and he is head of the Open Spectrum Foundation in Amsterdam, which provided very useful information on the technical and policy implications of open spectrum[40]. When the EU Commission introduce its proposal for a EU Radio Spectrum Policy Programme[41], LQDN set up a small targeted campaign. It called on allies in political groups at the EU Parliament to discuss with them the possibility of promoting access to the spectrum commons, highlighting their potential for the development of Wireless Community

[37] https://digitales-ehrenamt.jetzt/

[38] https://upload.wikimedia.org/wikipedia/commons/d/d2/Digitales_Engagement.pdf

[39] President's Council of Advisors on Science and Technology, Big Data and Privacy: A Technological Perspective; and Yochai Benkler, "Open Wireless vs. Licensed Spectrum: Evidence from Market Adoption," *Harvard Journal of Law & Technology* 26 (1) (2012): 69–163.

[40] See: http://www.openspectrum.info/

[41] Decision n° 243/2012/EU of the European Parliament and of the Council of 14 March 2012 establishing a multiannual radio spectrum policy programme.

Networks. To follow suit, it asked for help from people involved in Wireless Community Networks in the recently formed Federation FDN (in particular people from the Toulouse-based Tetaneutral)–and it went on to draft half a dozen of amendments that were sent to the political group and eventually tabled.

This came rather late in the legislative process. Lobbyists mobilized in Brussels around this issue were from the audiovisual and telecom sectors, in which no civil society organization had intervened so far. Among members of the EU Parliament, even those actively working on this dossier, the whole text seemed very technical, and its political significance largely hidden. So when the "pro-CN" amendments were tabled, most political groups gave them a fresh look and apparently thought that these were sensible proposals. All the amendments received unanimous support during the plenary vote in first-reading of the text[42].

Unfortunately, EU governments did not share this openness. It was their turn to legislate on the proposal, and they were concerned by the Parliament's proposal in favor of open spectrum. Not only did it not match the plans for incumbent players in the telecom industry, but they were also seen as overly prescriptive, encroaching on national prerogatives regarding spectrum policy. Sure, the logic of the proposal was to establish some level of harmonization, but this was seen as overstepping the red lines put forward by Member States.

The matter was eventually resolved during so-called trilogue negotiations, a rather opaque legislative process during which Member States and the EU Parliament try to come to an agreement on a text during closed-door meetings, with the help of the EU Commission. Most of the amendments were deleted, but some important language remained. For instance, the final text still calls for member states and the European Commission to "assess" the "need for and feasibility of extending the allocations of unlicensed spectrum" in the Wi-Fi bands, while also voicing tepid support for mesh networks by stressing their potential to foster access to the global Internet[43]. As EU lawmakers were working on the RSPP, a study commissioned by the EU Commission also called for a new 100 MHz of license-exempt bands as well as for higher power output limits in rural areas to reduce the cost of broadband Internet access deployment (Forge et al. 2012). Since then, however, EU work on unlicensed spectrum and on flexible authorization schemes which would be more accessible to community networks has stalled. In a communication released in September 2012, the EU Commission failed to announce any concrete action to expand unlicensed use of spectrum (*Communication on promoting the shared use of Europe's radio spectrum* 2012). As we have seen, the proposed European Code for Electronic Communications raises the issue once again.

During this whole period, LQDN's actions were somewhat disconnected from those CNs with a direct stake in the process. Contacts between digital rights groups and CN practitioners were still not very structured in France, and even less so at the European level. But for what appears to be the first time, CNs made an appearance in the policy-making process as citizen-driven initiatives in need from support from EU lawmakers.

3.3.2. Following-up on Net neutrality at the European level

In the summer of 2013, after almost three years of delaying any legislative action to protect Net neutrality, a leaked document from the EU Commission showed that a new "Telecom Single Market Regulation" would soon be tabled[44]. The leaked proposal immediately drew the ire of civil society organizations devoted to the

[42] Radio Spectrum Policy Programme (RSPP) Compromise. (2011, May). Retrieved from https://wiki.laquadrature.net/RSPP_Compromise. Turncoat EU Parliament Gives Up on Defending Free Wireless Communications. (2011, November 9). Retrieved from https://www.laquadrature.net/en/turncoat-eu-parliament-gives-up-on-defending-free-wireless-communications

[43] The RSPP states for instance that "wireless access systems, including radio local area networks, may outgrow their current allocations on an unlicensed basis. The need for and feasibility of extending the allocations of unlicensed spectrum for wireless access systems, including radio local area networks, at 2.4 GHz and 5 GHz, should be assessed in relation to the inventory of existing uses of, and emerging needs for, spectrum (...)." On mesh networks, it adds that "member states shall, in cooperation with the Commission (...) take full account of (...) the shared and unlicensed use of spectrum to provide the basis for wireless mesh networks, which can play a key role in bridging the digital divide." Decision No 243/2012/EU of the European Parliament and of the Council of 14 March 2012 establishing a multiannual radio spectrum policy programme, available at: http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32012D0243

[44] Regulation laying down measures concerning the European single market for electronic communications and to achieve a Connected Continent, and amending Directives 2002/20/EC, 2002/21/EC and 2002/22/EC and Regulations (EC) No 1211/2009 and (EU) No

protection of Net neutrality[45]. After a heated debate at the end of 2015, where European Telecommunications Network Operators' Association (ETNO) had tried to put language undermining the Net neutrality principle in the International Telecommunication Union (ITU) founding treaties, the proposal looked good on the surface. Indeed, it aimed to ban the blocking and throttling of given content, applications or services. But it played into the hand of telecom operators by guaranteeing their ability to prioritize certain data flows, and thus to develop business-models based on the selling of prioritization to online services providers. On August 30th, 2013, La Quadrature du Net posted an analysis that framed the proposal as a major instance of regulatory capture of the EU Commission CONNECT Directorate-General, tying it to a EU-funded research project led by a consortium that explicitly argued against the protection of Net neutrality:

> "*For the past 3 years, a consortium led by Alcatel-Lucent has been working on technical, business and legal aspects of a plan that would effectively put an end to the free and open Internet we enjoy today. Under the guise of protecting Net neutrality, EU Commissioner Neelie Kroes is about to give these big telecom companies a EU-wide legal shield to achieve their power-grab on the Internet economy (...)*"[46].

Over the next year, civil society actors would engage in a sustained mobilization to ensure that Kroes' proposal would be amended to bring actual safeguard to Net neutrality. In December 2013, at the 30th Chaos Communication Congress is Hamburg, EDRi, the Austrian group Initiative für Netzfreiheit, Germany's Digitale Gesellschaft, Access Now, La Quadrature du Net, Bits of Freedom founded the "Save the Internet" coalition. They put together a website that was aimed at sustaining this campaign, and allowing EU citizens to get in touch with their representatives through a Voice over Internet Protocol (VoIP) telephone tool.

In the run-up to the first reading vote of the EU Parliament, uncertainty with regards to the outcome was maximal. Members of the SaveTheInternet.eu coalition had to navigate a narrow path between what was politically possible and technically accurate. Through policy analysts at LQDN, FDN's Bayart acted a a key telecom expert within the group and also made trips to Brussels, using his skills to explain in simple terms the political stakes of a dossier that most Members of Parliament saw as very technical. He also indirectly shaped the coalition's amendment strategy. A major issue in these discussions had to do with "managed services": these referred to the sort of services that major telecom operators claimed needed a guaranteed quality of service to function properly, referring in particular to e-Health applications. Thanks in part to Bayart and other analysts from La Quadrature du Net, the coalition strategically moved from an original opposition to managed services to a more subtle position in which such services would be allowed as long as these were not competing with similar Internet applications.

This move likely boosted the chances of success of the coalition, since it allowed for innovative services not adapted to the "best effort" model of the Internet to be distributed with specific QoS, thus giving much less traction one of the strongest argument put forward by major telecom operators. And so ahead of the 2014 European elections, digital rights groups scored their biggest victory since the rejection of the anti-Counterfeiting Trade Agreement by the EU Parliament in 2012, with the Parliament voting in favor of the most important amendments they had tabled through allied Members of Parliament.

But the vote opened another stage in the EU law-making process. It was no up to EU governments to amend the text. Despite much more opaque procedures, the coalitions followed the process, often relying on leaks and insider information to gauge the political dynamic within the EU Council.

The process lingered on several months until the EU Council agreed, in mid-2015, to engage so-called "tri-

531/2012.

[45] Markus Beckedahl (2013). *Neelie Kroes will keine Netzneutralität sichern, sondern bereitet deren Beerdigung vor.* URL: https://netzpolitik.org/2013/neelie-kroes-will-keine-netzneutralitat-sichern-sondern-bereitet-ihre-beerdigung-vor/; *Kroes maakt einde aan netneutraliteit? – Bits of Freedom* (2013). URL: https://www.bof.nl/2013/07/12/kroes-maakt-einde-aan-netneutraliteit/; *Net Neutrality: Will Kroes Fool Citizens (And Give In to Telcos)?* (2013). URL: https://www.laquadrature.net/en/net-neutrality-will-kroes-fool-citizens-and-give-in-to-telcos.

[46] *Neelie Kroes Pushing Telcos' Agenda to End Net Neutrality* (2013). URL: https://www.laquadrature.net/en/neelie-kroes-pushing-telcos-agenda-to-end-net-neutrality.

logue" negotiations with the EU Parliament to come to an agreement on a final text. The coalition put forward several amendments to clarify the text's language, in particular regarding managed services and enforcement powers for national regulatory authorities. Advocacy groups were joined by startups, academics, journalist associations and prominent Net neutrality advocates like "web inventor" Tim Berners-Lee and US law professor Lawrence Lessig[47].

The amendments were rejected, which disappointed the coalition. At the Free Culture Forum held in October 2015 in Barcelona, members of the coalition gathered with other participants to devise a strategy aimed at influencing the implementation of the regulation, in particular by lobbying the Body of European Regulators of Electronic Communication (BEREC), which gathers national telecom regulators at the EU level and was tasked with drafting guidelines on implementation and enforcement of the Net neutrality Regulation. A new consultation took place, and SaveTheInternet.eu mounted yet another campaign to allow citizens to respond to the consultation. In-depth analysis of the regulation's flaws were provided and street protests were organized in Vienna and Barcelona[48]. The Body of European Regulators for Electronic Communications (BEREC) guidelines were released a few weeks later and the end-result was widely seen as a success, even though discriminatory pricing-schemes like so-called zero-rating plans remain possible in some cases.

This mobilization, which started in 2010 and continues to this day, is remarkable in several respects. First, it marks the emergence of a new structure of opposition in debates regarding telecom regulation, with actors coming from the digital rights scene opposing telecom incumbents. Until then, the representation of Internet users was mostly done by consumers organizations, which somewhat restricted the range of policy options and rationales put forward to oppose the biggest players players in the telecom industry. Net neutrality marked the arrival of new actors, with a high degree of technical expertise and resources to mobilize, who entered into ad hoc alliances with smaller players in the telecom industry or online service providers and managed to significantly influence the development of telecom policy.

But the caveat to this achievement from the perspective of alternative networks is that this legislation did not directly favor CNs. Whether they relied on their own networks or resorted to traditional Internet subscriptions, they could always use VPN like Freifunk does to escape discriminatory traffic management practices from incumbent players. The rise of infringements on Net neutrality by was an additional arguments they could have used to promote their initiatives (as is happening now with "Internet coops" in the US as the FCC moves to undermine "Open Internet" rules adopted under the previous administration).

From the perspective of the political and legal defense of CNs, however, this episode marked a new turn. For French CNs in particular, who played an important role in the national debate on Net neutrality, it has led to deepen the nature of their interactions with the national telecom regulator. In the Spring of 2017, FFDN representatives were invited by Arcep to a BEREC meeting, as regulators sought feedback on the appropriate tools to monitor the traffic-management practices of telecom operators[49]. Perhaps more significantly, because it allowed them to stress their own regulatory needs, they also responded to another BEREC consultation related to Net neutrality, one about interconnection practices and their regulation. In their response[50], they strongly criticized the BEREC approach, its "lack of political vision" and unwillingness to engage in systematic monitoring of interconnection agreement. They particularly highlighted the fact that major telecom operators and online

[47] Valarie Kaur (2015). *Broad Coalition Urges European Parliament to Adopt Amendments to Save Net Neutrality*. URL: http://cyberlaw.stanford.edu/blog/2015/10/broad-coalition-urges-european-parliament-adopt-amendments-save-net-neutrality.

[48] *SaveTheInternet - Demonstration für Netzneutralität* (2016). URL: https://www.apa-fotoservice.at/galerie/7863; *Por qué es importante que defiendas la neutralidad de la red en Europa* (2016). URL: https://xnet-x.net/por-que-importante-neutralidad-de-la-red/.

[49] The main points of the paper are: The tools must be free/libre software; The tests must be specific, permanent monitoring is discouraged Citizen's privacy must always be protected, all results must be published in an aggregated form and no information could lead back to the user. Net Neutrality: Respect my Net presented at BEREC. (2017, April 11). [La Quadrature du Net]. Retrieved from https://www.laquadrature.net/en/berec-net-neutrality-respectmynet

[50] *Response to the BEREC consultation about the draft report on IP-Interconnection practices in the context of Net-Neutrality* (2017). URL: https://www.ffdn.org/en/etude/2017-07-05/response-berec-consultation-about-draft-report-ip-interconnection-practices-context.

service providers were increasingly resorting to bilateral agreements thought Content Delivery Network (CDN) bypassing traditional Internet eXchange Points (IXP):

> "*The on-net CDNs [Content Delivery Networks] or cache servers are a strong problem for fair competition: is every CAP [Content or Application Provider] able to get the authorisation to install its equipments inside each ISP's network? Is a newcomer on this market able to have the financial power to do this? Obviously, no.*
>
> *From the user's point of view, newcomer's services will be slower than well established services. NRAs should study these potential infringements to users' rights and limit this practice in favor to Internet eXchange Points (IXP) and free peering. We strongly approve [the recommendations of the ITU] about promoting local IXPs: non-profit local IXPs and free peering are the only interconnection forms that allow any newcomer to exist and grow on the market.*"

In a separate post written after a meeting with Arcep, the French NRA, in June 2017, Bayart also wrote about several enforcement problems with the new regulation:

> "*What we want are not studies, sanctions, reports, dialog, legislation or voodoo. What we would like is for the operators to end their abusive behaviours toward their subscribers. Arcep is the authority in charge of that matter, and it is making no progress with it.*"[51].

3.3.3. Preventing "Radio Hardware Lockdown" through EC working groups

In late 2015, practitioners of radio networks used to tweaking with their radio hardware started to worry. There were signs that off-the-shelf router from leading manufacturers like TP-Link were preventing users from installing their own firmware on wireless routers. In various places where wireless CNs gather, e.g., on the Battlemesh mailing list, there were growing fears of a "radio lockdown". In October, Member of the EU Parliament Julia Reda wrote a blog post to relay these concerns[52], taking Freifunk's OpenWRT as an example of the kind of innovation underlying "free and open" networks that was endangered by a directive adopted in October 2014[53]. As she explained:

> "*In Article 3.3 (i) of the directive, it says devices need to be built in a way to "ensure that software can only be loaded into the radio equipment where the compliance of the combination of the radio equipment and software has been demonstrated". This could be interpreted as a requirement for manufacturers to only allow certified software to run on their devices. Projects like Freifunk and others as well as commercial third-party producers would suffer as a result, lacking proper certification." The original Commission draft of the directive, however, includes a recital (19) that explicitly mentions: "Verification . . . should not be abused in order to prevent [the devices'] use with software provided by independent parties". It is now a matter of the member states' transposition of the directive into national law whether the recital's intention is kept.*"

In the USA too, new regulation from the FCC led to a new round of similar concerns, which materialized in February 2016. On the "LibrePlanet" wiki, one participant wrote:

> "*Despite the FCC unequivocally denying that this was their intention it was irrelevant to the outcome and response of manufacturers to the new rules. The competitiveness of the market and costs of compliance means the only real solution for manufactures to comply is the lock down of there router's firmware. The TP-Link rep went on to say that all future routers would be locked down as a direct result of the rule changes: These rules are bad and already hindering user freedom. The*

[51] *Net neutrality: one year after, a dark picture* (2017). URL: https://www.laquadrature.net/en/net-neutrality-one-year-after-dark-picture.

[52] Julia Reda (2015). *Dear European governments: don't endanger free and open WiFi networks!* URL: https://juliareda.eu/2015/10/dear-european-governments-dont-endanger-free-and-open-wifi-networks/.

[53] Directive 2014/53/EU of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.

> *FCC has pulled a fast one and we need to fight back. This is a major security and privacy threat which will lead to even buggier and more insecure wireless hardware. A legal campaign to end this nonsense will require significantly more funding and criticism. Unfortunately the major players on fighting this are burning out. Christopher Waid, of ThinkPenguin, Dave Taht, of BufferBloat, Eric Schultz, Josh Gay of the FSF, and others just don't have the time or resources to keep fighting this. Don't let this be the end*[54]."

In February 2016, Battlemesh participants also experienced a lockdown on specific models of routers and started doing research. At the time, netCommons was only getting started, but it soon acted as a network hub, relaying the news from the Battlemesh mailing list to national and European networks which, until then, had neglected the news, and later on by writing a blog post[55]. This triggered various actions.

In France, after writing an open letter[56], La Quadrature du Net and representatives of Fédération FDN had a meeting with people in charge of transposing the EU directive into French law, only to be told that they law was already drafted, but that their concerns were overblown. Other similar initiatives were launched in other countries, pushed in particular by the Berlin-based Free Software Foundation Europe (FSFE), whose analyst Max Mehl was invited by netCommons to appear at the Battlemesh conference later that Spring to warn CN practitioners about the risk entailed by the directive. The Free Software Foundation Europe (FSFE) chose to make the radio directive one of its priorities and became the coordinators of the dozen of activists mobilized across Europe on the issue, through the "RadioDirective" mailing list, including people from several CNs as well as netCommons. For the FSFE, the radio directive was creating a form of discrimination for free/libre and open source software, as it explained a policy brief that became a reference.[57]. But this advocacy push came too late to have a significant impact on legislation. It was already adopted at the EU level and the transposition was well underway in most Member States.

Fortunately, there was another opportunity to ward off the chilling effects that the radio equipment directive might have for radio amateurs and CN practitioners. The EU Commission needed to set up an "Expert Working Group" to advise it on the "delegated acts" in needed to adopt to implement the directive, and in particular list the kind of equipment subject to the obligation of article 3.3 of the directive, and its possible exceptions. When the call for application was launched by the EU Commission, in December 2016. Through the "radio directive" mailing-list, active participants started to debate the possibility of mandating experts to take part in the EU Commission working group that would help it draft the delegated acts. FSFE, which was the only competent pan-European organization in the group at this stage, applied. In the end, its application was rejected, but two other groups with similar concerns as the people on the list were accepted: the International Amateur Radio Union (IARU) and the Alexander von Humboldt Institute for Internet and Society.

The process is still ongoing, and as we write this report, the working group has just held its second meeting. But based on reports circulated on the "radio directive" mailing list, it is clear the interests of Community Networks are being made visible in the discussions. The working group has decided to come up with case-studies highlighting the different problems raised by the liability regime enshrined in the directive. Freifunk and netCommons contributed to drafting one on Community Networks where they highlighted that:

> "*In order to reduce the cost of deployment and enlarge their user base it is of critical importance for Community Networks that custom software can be installed on low-cost Wifi routers that people can easily purchase. With article 3.3.i of the Radio Equipment Directive it is foreseeable that manufacturers will either completely block installation of third party software or make third party software subject to cryptographic signature checks, to ensure regulatory compliance. For manufacturers, simply closing devices for all third party software saves development cost and allows shorter time to market.*"

[54] Save WiFi/Individual Comments. (2016, February 16). Retrieved from https://libreplanet.org/wiki/Save_WiFi/Individual_Comments

[55] Panayotis Antoniadis (2016). *Defending Free Software for radio devices*. URL: https://netcommons.eu/?q=content/defending-free-software-radio-devices.

[56] *Directive Radio - Lettre ouverte à Bercy et à l'Arcep* (2016). URL: https://www.laquadrature.net/fr/directive-radio-lettre-bercy-arcep.

[57] EU Radio Lockdown Directive. (2016, March). Retrieved from https://www.laquadrature.net/fr/directive-radio-lettre-bercy-arcep

The case-study ends by saying that router manufacturers should be mandated to open their devices to third-party open source software, support open-source communities by providing them sufficient information about the possible consequences of flashing custom firmware on their device, and most crucially, to exclude WiFi routers from the application of article 3.3.i.

It remains to be seen what will be the outcome of the working group. But to our knowledge, this episode marks the first time that Community-Networks across Europe, in partnership with digital rights advocacy groups, worked together to organize their legal defense, on a matter that directly threatens their model.

3.3.4. Bringing a common voice to influence the 2017 Telecoms Package

In Chapter 1, we mentioned at length the open letter sent in March 2016 to EU policy-makers. The lobbying on this issue had actually started months before. In November 2016 for instance, FFDN had met with the Arcep and the government to offer its view on the major stakes of telecom regulation and give a general opinion on the EU Commission proposal[58]. According to FDN:

- each local fibre loop, area by area, must be controlled by the public power;
- the local radio loop must be deployed at the European level, by bundling frequencies, for a better technical efficiency;
- the entity in charge of the deployment and the maintenance of a local loop must be forbidden to operate it and must obey public and transparent rules for the marketing towards all European operators that are interested;
- those local loops must allow to broadcast network access in all Europe, for all citizens.

After the open letter was sent, in March 2017, leading European CNs kept mobilizing on the issue, with the help of netCommons and La Quadrature du Net. A week after the open letter was sent to EU lawmakers, LQDN published a post opposing the bill. According to its analysis:

> "*the Commission favored powerful operators substantially by completely deregulating investment in the as-yet undefined new network elements. It was the same when it proposed not to regulate the structurally separated operators. The Commission also handed operators a beautiful gift by offering them individual rights to radio frequencies for 25 years while counting on the secondary frequency market to keep it all working*[59]. "

Worse, according to LQDN, the Spanish MEP in charge of the text at the European Parliament, Pilar Del Castillo, had just tabled a very dangerous report whose recommendations would only aggravate the initial proposal:

> "*Determined in her quest for European breakage, Mrs del Castillo doesn't hesitate to dig deeper the gap opened by the Commission. European regulation must not merely be written for an oligarchy, it must be made for a monopoly. But not any old type of monopoly. The public monopolies which Europe has fought against when they were State property, the rapporteur now plans to give to private companies–the incumbent operators, those now-privatised former monopolies.*"

Reading through the proposal, Oriane Piquer-Louis, the director of the Federation FDN, would later write of the proposal's introduction:

> "*As we keep reading, we find part of an answer. The word "consumer" comes back time and time again, throughout the whole legislative text (159 occurrences in the version from September 2016, without even counting the numerous amendments. The word "citizen" only appears 27 times in 238 pages). Clearly this text is not about citizens, but about "consumers". I don't know about*

[58] quota-atypique (FFDN Member pseudonym) (2016). *Note d'analyse sur le Paquet Télécom*. URL: https://www.ffdn.org/fr/etude/2016-11-14/note-danalyse-sur-le-paquet-telecom.

[59] *From bad to worse: the del Castillo Report on the European Electronic Communication Code* (2017). URL: https://www.laquadrature.net/en/telecom-package-del-castillo-report.

> *you, but I wouldn't like my civil rights to be limited to consumer rights. It is pretty shocking, to see yourself be relegated from citizen to an individual pushing a shopping cart through a supermarket. I thought I was more than that, as a European citizen, and mostly: I thought Internet allowed me to do a little bit more than just pushing a virtual shopping cart*[60]."

In France, legal researchers from netCommons teamed up with FFDN and LQDN to analyze the Del Castillo report and come up with amendment proposals aimed at implementing the recommendations made in the open letter. They asked Guifi to get in touch with the rapporteur, which they did by sending her key documents to present the activities and successes of Guifi across Spain. In France, Nantes-based FAIMaison also publish a blog post explaining that 'the future of Community Networks was being decided upon at the EU level[61]."

The netCommons-LQDN group also also contributed to analyzing all the significant amendments tabled in the various committee of the EU Parliament working on the Telecoms Package[62]. They provided notes and comments on them so as to make voting recommendations to MEPs ahead of the vote in early June 2017. LQDN also set up a VoIP tool called "PiPhone" to allow people to get in touch with their representatives at the EU Parliament. However, a vote did not take place, as the the various political groups entered in an opaque process to draft so-called "compromise amendments". As LQDN explained early July, these discussions "are not public, the schedule of meetings is not even published, the working documents are not published either and only a very close contacts within the European Parliament [allow access] to information (...)[63]." Members of FAIMaison also wrote to key European lawmakers[64].

The crucial vote of the leading committee, the Industry, Transport, Research and Energy (ITRE) committee, took place in early September. Most of the very pro-CN amendments were not carried on, but the vote nevertheless corrected crucial provisions compared with the initial proposal of the EU Commission and those of the rapporteur, Pilar Del Castillo. In particular, the text protected the ability of NRA to regulate monopolistic situations at the local level and force incumbents to open their exclusive last-mile fiber-optic networks to other players. It also promoted unlicensed and shared access to spectrum.

Through the Telecommons mailing list, a joint press release was drafted and signed by about 20 organizations, including major European CNs, to call on the Parliament to stand firm during the "trilogue" negotiations with the Member States. According to the signatories:

> "*In a policy domain that has for too long been prone to regulatory capture by private interests, we call on the Members of the European Parliament to defend the public interest by promoting pro-competition and pro-diversity policies. By resisting the pressure of European governments who seek to further entrench the power of the largest industry players over network infrastructures, our elected representatives can ensure that alternative operators and local communities have the adequate means to develop and innovate, offering forward-looking models and services to the benefit of all*[65]."

In October 2017, netCommons organized a workshop in the premise of the the EU Parliament on the regulatory needs of CNs. Three MEPs joined the discussion, including, Miapetra Kumpula-Natri, José Bové and Julia Reda (excerpts of these discussions are presented in annex). This was the occasion not only for representatives of leading European CNs to come to Brussels, and establish contact channel that can be activated as new policies impacting CNs are developed and bring a dissenting voice to that of mainstream telecom operators.

[60] Oriane Piquer-Louis (2017). *All of this just to play with toy cars...* URL: https://www.laquadrature.net/en/EU_Telecom_Package_courage_over_details.

[61] Le futur des fournisseurs d'accès associatifs se joue au Parlement européen (2017, September 3). Retrieved from https://www.faimaison.net/actualites/appel-eurodeputes-code-communications-electroniques-europeen-2017.html

[62] See: https://wiki.laquadrature.net/Paquet_Telecom_2017/amendements_IMCO, https://wiki.laquadrature.net/Paquet_Telecom_2017/amendements_ITRE, https://wiki.laquadrature.net/Paquet_Telecom_2017/amendements_LIBE

[63] *EU Telecom Package: courage over details* (2017). URL: https://www.laquadrature.net/en/EU_Telecom_Package_courage_over_details.

[64] See: https://archive.is/RVNxJa

[65] European Governments Seek Greater Oligopolization of Telecom Infrastructures. (2017, October 3). Retrieved from https://netcommons.eu/?q=news/european-governments-seek-greater-oligopolization-telecom-infrastructures

The process is still unfolding as we write this deliverable, but it shows that coordinated action can help CNs gain more visibility in debates on telecom regulation. The process was initiated by a low-resourced activism methods, like the open letter which brought CNs to the attention of policy-makers, regulators, the press and public opinion. Later on, the groups engaged in this campaign were able to mutualize expertise on time-consuming, complex topics, like drafting and tabling amendments. In a nutshell, as with the radio lockdown campaign, we can see it as a first experiment proving the effectiveness, and importance, of organizing coordinated CNs' advocacy capacities at the EU level.

3.4. Litigation

We propose to make interactions with the courts a specific section, because the legal system is integrated from the local to the EU level. We will focus on two key cases and their reading on the impact on CNs.

3.4.1. Ligating the McFadden case

Among all the national legal challenges introduced by Freifunk[66], their partner Offene Netze, and its Freifunk Not Fear campaign website arm, this section chooses to develop the MacFadden case.

A member of the German Pirate Party, MacFadden, was offering open WiFi in his shop in Berlin, and was sued by a right holder. The case went from local to national court, and ended up at the European level in a landmark 2016 case on open networks, and likely to be applied to CNs across Europe. The legal analysis of the case has been provided in Deliverable 4.1 and a journal article which explains the story in greater details (Dulong de Rosnay et al. Dec. 2016; Giovanella and Dulong de Rosnay 2017). An except follows here:

> "*On September 15, 2016 the Court of Justice of the European Union adopted a decision in a case that could potentially affect any CN in Europe. The request for a preliminary ruling was made by the Munich Regional Court in Germany in a process pending between Tobias Mc Fadden and Sony Music Entertainment Germany GmBH. Tobias Mc Fadden owns a shop where he sells and leases lighting and sound systems. Within his shop, Mr Mc Fadden runs a wireless local area network (WLAN) free of charge; access to the network was intentionally open to anyone and not protected by a password, to allow customers to use it and to draw passers-by's attention.*
>
> *In September 2010, by means of this WLAN a musical work was made available to the public on the Internet free of charge, without the consent of the right holders. Sony Music, that is the producer and the right holder of that work, sent a formal notice to Mr Mc Fadden to obtain protection of its rights on the musical work. As a response, Mr Mc Fadden brought an action to obtain a negative declaration before the Munich Regional Court.*
>
> *Sony counterclaimed asking for damages compensation on the ground of direct liability for copyright infringement. The company also asked an injunction, meaning: an order from the judge to stop Mc Fadden's allegedly infringing activities.*
>
> *In January 2014, the Munich court dismissed Mr Mc Fadden's action and upheld Sony's counterclaims. Tobias Mc Fadden appealed the decision, arguing that he is exempted from liability thanks to 2000 Directive on Internet service providers' liability exemptions; in particular, article 12 deals with mere-conduit (or access) providers.*
>
> *Consequently, Sony argued that in the event that the Munich Court would not find Mr Mc Fadden directly liable, it should apply the Störerhaftung doctrine as Mc Fadden had not secured his wireless network, so allowing third parties to infringe Sony's copyright, relying on Paragraph 97 of the German Law on Copyright (Gesetz über Urheberrecht und verwandte Schutzrechte – Urheberrechtsgesetz) right for the copyright holder to ask for an injunction and for damages compensation in case of copyright infringement.*

[66] http://freifunkstattangst.de/category/urteile/

The Munich court considered it to be plausible that the violation of Sony's rights was not committed by Mr Mc Fadden, but by another party. At the same time, the German court was also incline to consider Tobias Mc Fadden liable under the Störerhaftung doctrine. However, the Court was not sure whether the exemption provided by article 12, Dir. 2000/31 was or was not applicable to Mr Mc Fadden; as if it was, he could not be considered liable at all.

The most interesting point of the judgement, and probably the one that will probably have more affect on the future of open WiFi networks is what kind of measure should a provider of open WiFi adopt to avoid infringements and subsequent liability. This question entails another one: is a provider enjoying the liability exemptions of article 12 shielded only from damages or is it also shielded from injunctions?

The Munich court asked to the European judge whether Directives 2001/29 and 2004/48–that relate to copyright in the information society and to intellectual property rights enforcement–read in conjunction with article 12 of Dir. 2000/31 preclude the grant of an injunction against an intermediary when it has already been ascertained that the only technical measures that the provider may adopt are in practice:

1. *To terminate the account*
2. *Or to password-protect the access to the network*
3. *Or to examine all communications passing through the network.*"

While solutions #2 and 3#, surveillance and termination of account, were judged as presenting serious impediments, the Court of Justice held that solution #1, password protecting a connection, can be a deterrent to copyright infringing activities, as long as users are required to identify themselves to obtain the password and do not act anonymously.

Two members of Freifunk gave their interpretation of the final decision guided by the following questions:

- Do you think that McFadden, on the whole, brings useful protections to WLAN access providers? How do you interpret the fact that the liability exemption of the eCommerce directive, and therefore the ECJ ruling, only applies to persons engaging in an economic activity?
- In Germany, after McFadden and the amendment to the Tele-Media Act are the most important legal aspects that still need to be clarified to bring legal certainty to WLAN access providers?
- Do you think the re-opening of the EU telecoms package creates opportunity to lobby for a change in legislation at the EU level?
- Are the VPNs still needed at Freifunk? Should they still be encouraged?
- Besides liability regimes, are the main legal obstacles to continue the development of Freifunk?

One member provided their analysis which reads as follows:

"*Reading the exact wording of European Court of Justice's (ECJ) decision in the McFadden case, sections 5 and 6 in particular, I understand that the court deems the current practice of sending automated cease-and-desist letters, claiming damages and adding penalty fees as violating European Law. The court makes it very clear that subscribers sharing their internet connection are not liable for copyright infringements committed by third parties using the shared internet connection. Unfortunately, this outstanding decision is not being met with appropriate celebration: a side note, the court's remarks that there actually are copyright violations in the internet, has overshadowed the ruling. Basically we see a conflict of two fundamental rights: freedom of communication und information vs intellectual property. And, in accordance with the EU Charter of Fundamental Rights, you can not have one fundamental right vastly outweigh another.*

That's why the ECJ suggests securing your WiFi with a password as one example of how to protect interests of intellectual property holders. But the court also states, that private entities can not just demand, which means another private entities must implement. This decision must be made by a court or a national authority. And these kind of rulings require concrete, transparent procedures. And these procedures still need to be developed and put in place.

Whether or this decision–and thus directive 2000/31–pplies to Freifunk, is not part of the ECJ ruling. But we're not discussing whether the subscriber is engaged in any business, but whether he acts as service provider and thus falls into scope of directive 2000/31. Since Freifunk activist provide, inter alia, internet access, I don't see a problem of applicability.

Regarding all the negative remarks made by my fellow lawyers, I can just assume that much of disappointment about this years amendment of German's Telemediengesetz (TMG, Telemedia Act) shines through.

Considering the huge amount of excellent work and political commitment we have seen over the last years, the results are underwhelming – I can understand that, the target of creating legally certainty was obviously missed. After all I consider the complex of industrialised cease-and-decist demands not a political problem that can be solved by political means, but a juridical problem.

Since the 1990ies, in the course of court rulings, we have seen quite a few legal errors, to name just a few:

1. *A positive presumption that internet subscribers are sole users of the internet connection, and thus consequently responsible for copyright violations, is just straight wrong.*
2. *Logging of IP addresses by the internet providers is far from being reliably or evidence-proof. Consequently the must not be the sole basis for a conviction.*
3. *Uploading copyrighted works to the internet in almost every case happens without the user's knowledge or consent. An assumption of "commercial activity" is outrageously wrong and shows that the legal argument is made starting from the intended goal and not from the word of law.*
4. *Applying an analogy of a so-called "Lizenzschaden" (harming royalties) is not grounded on actual facts. The analogy has a punitive intent, designed to yield a deterring effect. No file sharer would ever think about acquiring a license to act in a non-consumer-role on the market–actually earning anything is next to impossible. And in no single case an actual damage could be proven to the court. Reliable figures and data are virtually non-existing and have not been produces–in or out of court. In fact, most file sharers have statistically shown to be very active paying costumers compared to the average internet user. Considering the extent of file sharing, each cease-and-desist case seems arbitrary and shakes an affected citizen's sense of justice. We currently see a comparable concerning development in the field of image rights in social networks.*

So I would love to see a conversation about those (and some more) juridical problems in the field of cease-and-desist cases. In the long run, we need to work towards a better, more modern jurisprudence. I see that happening in smaller scope already, but the problem needs much more attention from everyone advocating for open networks."

The second reply reads as follow:

"*The McFadden ruling didn't really change much, in my opinion. In essence, it says that it is compatible with EU law to hold a Wi-Fi owner liable for the wrong-doings of users through his network. According to the CJEU, EU-law does not allow a liability that covers damages for the wrong-doing as such, but it does allow one that covers court injunctions aimed at ending the infringement and preventing further identical infringements.*

So: before the court ruling, Wi-Fi owners had to fear warning letters/injunctions for both damages and ending the infringement. According to the CJEU, they now only have to fear the latter –if the provisions of national laws allow injunctions aimed at ending the infringement.

The German law passed in the middle of 2016 only clarified that Wi-Fi owners cannot be held liable for a network-user's wrong-doings as far as damages for the actual wrong-doing are concerned. But the law did not say anything about the liability concerning injunctions aimed at ending/preventing the wrong-doing. The Social Democrats only managed to add a remark to the law's

recitals, saying that they hope courts will interpret the law in a way that exempts wi-fi owners from such injunctions. The recitals are not binding, though–which is why this wasn't anything more than a pious wish.

So the CJEU ruling didn't change a bit about the situation we had in Germany after the law had been passed in summer. The fact that the Social Democrats (or to be more precise, the Ministry of Economics which is led by the head of the Social Democratic Party) are now proposing a revision of the German law is not much more than a fairly transparent move in the face of the Federal election coming up in 2017. The Conservatives have already denied making changes to this law so I do not expect anything much to happen here.

The bottom line is: Wi-Fi owners in Germany still have to fear injunctions for the wrong-doing of others. Because of this risk, they will refrain from opening up their networks to the general public. Initiatives like Freifunk will probably continue to tunnel their traffic through countries that do not have the kind of liability as we have in Germany."

3.4.2. Strategic litigation against surveillance and censorship laws in France

The second case is broader, and relates to FFDN in France. It started shortly after the first disclosures by NSA whistleblower Edward Snowden. In the fall of 2013, the French government decided to legalize hitherto illegal capacities of its intelligence agencies regarding extra-judicial access to the metadata held by telecom operators and hosting providers. To do so, it worked with members of Parliament which were then working to pass the Military Planning Bill (or LPM in French).

At first, the amendment went unnoticed. It was only after a few weeks, and an initial criticism by a trade group representing large for-profit online services, that advocacy groups ranging from the League of Human Rights to La Quadrature du Net and Reporters Without Borders engaged in a short but intense mobilization to get the amendment repealed. The mobilization eventually failed, but it led to new coordinations among human rights groups working to protect civil liberties in the digital sphere (Tréguer 2017).

Approximately a year later, on Christmas Eve 2014, the French government adopted the implementation decree of this new surveillance legislation. When the news got out, a volunteer from the board of the French Data Network with a legal and policy background took notice, and first voiced the idea of introducing a legal challenge against the decree before the Council of State, France's supreme court for administrative law. Within a few days, interpersonal connections and multi-level involvements of a small group individual in FDN, FFDN and LQDN let to the formation of a group of half a dozen persons, four of which had a legal background and previous experience in policy advocacy either at LQDN or FDN, as well as two computer engineers from FDN and FFDN. In this way, these volunteers formed a working group devoted to litigation in the field of digital rights – an idea that had long been contemplated by LQDN but which had never been implemented because it was deemed too resource-intensive.

A month later, a first legal challenge was introduced against the LPM's implementation decree to try to apply the case law of the EU Court of Justice on data retention to French law. In February 2015, two decrees were also published to implement recent laws allowing for the administrative, extra-judicial censorship and blocking of websites hosting child abuse or pro-terrorist content, also before the Council of State. Then, that Spring, a major policy debate took place on the Intelligence Bill, a sweeping overhaul of the legal framework for the communication surveillance activities of French intelligence agencies. Six months later, the group would start working on challenges to the implementation decrees of the law, and assist a member of the EU Parliament in a legal challenge against the law's provisions on international surveillance. It also introduced a still-pending legal challenge against the EU-US Privacy Shield agreement governing the transfer of personal data from the EU to the US[67].

The three organizations were represented in each of these challenges, which ensured a maximal surface in terms

[67] An overview of the various cases introduced by the group is available at the following address: https://exegetes.eu.org/dossiers/

of legal standing. On the first case, a famous law firm offered pro-bono help, and represented the organizations on several other cases. That helped the volunteer team to get expert advice. Since then, the group has grown in competence. It expanded and some of its participants became practicing lawyers. LaQDN started hiring a legal intern devoted to helping the group cope with its increasing workflow. Many cases are still pending, some were lost, but there were also two significant wins before the Constitutional Council against the Intelligence Act.

So far, none of these cases directly relate to issues that are fundamental for CNs, to the exception of the ones related to data retention. But at FFDN, these first systematic endeavors have sparked interest in expanding the initiative to telecom regulatory matters, whether to go against anti-competitive practices by incumbent players, discriminatory processes regarding public tender, etc. Here, they could follow the logic pursued by Guifi in Spain, who in 2017 followed similar cases against the hurdles mounted by local authorities:

> "*The guifi.net Foundation brought two legal actions to defend the rights of the participants to access the public infrastructures. The first was brought to the Catalan competition authority (ACCO) in May 2017 against the Catalan Government for a case of discriminatory fees and the second was brought to the Spanish national regulatory agency (CNMC) on December 2017 against the Spanish Government. The first was successfully resolved and the second, which was encouraged by the European's Parliament answer to the aforementioned question, should be resolved in early 2018*[68]."

It shows in any case that a small group of volunteers gathering various forms of expertise can be very effective in engaging in strategic litigation, at least when the legal system provides channels for doing so at very little cost, like it is the case under French administrative law.

3.5. International Advocacy

Referring to the history of alternative communication networks analyzed in Deliverable 5.1 Trudel et al. Dec. 2016, we indicated that advocacy had long been crucial to their fate. But in the wider world of media activism, issues related to the telecom sector have oftentimes been sidestepped.

3.5.1. Lessons from the 1970s

Traditional histories of contemporary media activism go back to the 1970s. They refer to the strong debate over the notion of "communication right", pushed by various actors invested in the international debates held under the auspice of Unesco regarding policies attached to mass media(Cardon et al. 2010; Hamelink 2002; M. L. Mueller et al. 2007). The most prominent advocate of this new right that was to be recognized by international law was Jean d'Arcy, an United Nations official and important player of the development of television broadcasting in France. D'Arcy argued that new technologies had the potential for more horizontal forms of communication, and that next to the right to freedom of expression enshrined under article 19 of the Universal Declaration of Human Rights, a new right should be recognized: "*the time will come,*" d'Arcy argued, "*when the UDHR will have to encompass a more extensive right than man's right to information . . . This is the right of men to communicate*" (Quoted in: Hamelink 2002)

This framing that emphasized the potential of a more horizontal media ecosystem through new information technologies echoed some of the use and tactics of communications activists–especially parts of the Free Radio movement which underlined the possibility to use broadcast radio while breaking away from the dominant, mass media model into which it had been molded. It was taken by a wide community of communication and journalism scholars inspired by d'Arcy's vision, and would eventually made its way in the famous MacBride report, named after the commission formed in 1977 directed by Seán MacBride, an Irish politician and human right advocate. The report, completed in 1979, offered a critique of the structural inequalities that affected

[68] See: https://fundacio.guifi.net/Blog?id=25 and https://fundacio.guifi.net/Blog?id=30

Southern nations–often developing countries that had recently emancipated from colonialism in the field of information flows.

That critique, which led the report's authors to call for a "New World Information and Communication Order" (NWICO), was grounded in political economy arguments that highlighted the dominance of the media and cultural industries from the North. It would eventually lead Unesco to develop its own programs to push for the formation of national and regional news agencies and training centers for journalists.

In this era, important transnational networks formed, like the World Association of Community Radio Broadcasters (AMARC), founded in 1983, or the Association for Progressive Communications (APC) which formed in the late 1980s (M. L. Mueller et al. 2007). These association organized at the transnational level to push for policies that would diversify the media ecosystem, make a room for non-profit initiative in the broadcast environment.

But the "horizontal communications" paradigm was obscured by these "quantitative" approaches aimed at correcting global inequalities in informations flows. And in the 1990s, these policies were progressively neglected to insist on the empowerment of specific communities and allow them to broadcast their own voices. According to Cardon and Granjon, at the international level, the period marked a shift from a counter-hegemonic critique–one grounded in political economy and focused on structural issues, like the concentrated property structure of media industries and how it undermines the quality and diversity of media productions–to an "expressivist" one, focused on empowering individuals and collectives to disseminate their own voices and find a way to meet their specific communication needs by mastering the roll-out of alternative media and information networks (Cardon et al. 2010). This shift in focus led to the proliferation of community media at the international level, fueled by the advent of new communication technologies.

In this context, the notion of digital community networks slowly emerged in these discussions. The liberalization of media and telecom industries from the 1980's onwards had mainly given way to criticisms based on privatization of public assets, the lack of consideration for local and non-profit radio broadcasters, and the anti-competitive and anti-consumers practices of incumbent telecom operators[69]. However, the third way offered by commons-based forms of governance over telecommunication infrastructures, as opposed to governance by the market or the state, remained mostly out of the policy radar.

3.5.2. CN slowly entering Internet Governance

It was only at the turn of the millennium, in particular with the apparition for the first Wireless Community Networks like Consume.net in London in 1999 that CNs based on the IP protocol started to form part of the local initiatives that brought new solutions to the long-standing problems in the field of access to media and communication networks. This was reflected in October 2002 at the World Forum on Community Networking (WFCN) organized a Global Congress on Community Networking in Montreal under the patronage of Unesco. The congress aimed at "being a place to explore and exchange hands-on experience and training for the benefit of the world's community networks, their partners and the general public[70]."

Meanwhile, proponents of a "right to communicate" continued to influence the legal and policy discussions at the international level. One of their most influential representative was Cees J. Hamelink, a Dutch professor who, after years of taking part in these international debates, put forward a "Universal Declaration on the Right to Communicate" which contained several interesting provisions for CNs (Hamelink 2002). It referred to the protection rights, stressing that "the protection of people's private communications against interference by public or private parties". It also mentioned "collective rights", in particular the "the right of access to public communication for communities the right to the development of communication infrastructures, to the

[69] See for instance: Ziya, E. (1999, April 21). Fifteen Countries Participate in Coordinated European Telecommunications Boycott. Retrieved November 3, 2016, from http://www.unmetered.org.uk/press/pr210499.txt

[70] Third Congress on Community Networking in Digital Era to Address WSIS. (2002, July 8). Retrieved December 1, 2017, from https://archive.is/6ksDK

procurement of adequate resources, the sharing of knowledge and skills, the equality of economic opportunities, and the correction of inequalities." The declaration ended with "participation right," among which "the right to people's participation in public decision making on the choice, development and application of communication technology."

However, these proclamations apparently failed to translate into specific proposals regarding citizen-owned infrastructures. One exception, it seems, was the debate over the radio spectrum. At a time when wireless community networks were flourishing (many of these initiatives would lapse within a few years, however),[71] lawyers from the world of NGOs and academia caught interest in these initiatives. In the run-up to the World Summit on the Information Society (WSIS) in Tunis, the NGO Article 19 published a note on "license requirements for the use of wireless communications device[72]."

But the push for policies that would actively support, or at least remove the legal barriers to the development of community networks lingered. While CN were engaging a "revival" from the early 2010s onwards, with the maturation of initiatives like Guifi, Freifunk or Rhizomatica, among others, a growing interest in these initiatives among academic circles led people well inserted in Internet governance for a at the international level.

According to Luca Belli, a researcher in Internet Governance at the Center for Technology and Society (CTS) of Fundação Getulio Vargas Law School in Rio de Janeiro, the growing mobilizations for CNs actually comes out of the debate on Net neutrality[73]. Around 2014, the arrival of commercial offers offering free and unlimited access to a select number of websites–so called zero-rating schemes–was presented a way to boost connectivity in underserved and marginalized communities[74]. Such schemes were seen by many Internet researchers and activists as a blatant violation of Net neutrality, and led some of these actors involved in Internet governance fora to put forward CN as an alternative, bottom-up and empowering solution to connectivity challenges.

Since then, the Internet Governance Forum–organized every year under the auspice of the UN General-Secretary–has been a hotspot for various actors defending community networks. In November 2015, during the Internet Governance Forum (IGF) held in João Pessoa, Brazil, a workshop entitled "Community Networks: a Revolutionary Paradigm." The workshop eventually led to the creation of the IGF Dynamic Coalition on Community Connectivity (DC3) to which netCommons has actively participated since 2016. According to the presentation of the coalition on the IGF website:

> "*Workshop participants agreed on the potential of community networks in order to promote sustainable Internet connectivity and foster the full enjoyment of fundamental rights such as freedom of expression and self-determination. To this extent participants stressed the need to move forward the discussion on community networks and further analyse how such networks may be used to foster sustainable Internet connectivity while empowering Internet users. During the workshop, consensus emerged with regard to the need for international cooperation aimed at fostering synergy and coordination amongst different community networks. Such cooperation may be particularly useful in order to identify:*
>
> *1. best practices for the development and maintenance of community networks;*
> *2. sustainable organisational and financial models for community networks;*
> *3. efficient software and hardware technology[75].*"

[71] List of Wireless Communities. (2012). Retrieved December 1, 2017, from https://archive.is/oZKdx.

[72] Article 19. (2005). The legitimacy of licence requirements for the use of wireless communications devices. Retrieved April 16, 2014, from https://www.article19.org/data/files/pdfs/analysis/wireless-communications.pdf

[73] Belli, L. (2017, December 2). Defending CNs in international fora [Phone interview].

[74] See for instance Facebook Zero, an initiative undertaken by social networking service company Facebook in collaboration with mobile phone-based Internet providers, whereby the providers waive data (bandwidth) charges (also known as zero-rate) for accessing Facebook on phones via a stripped-down text-only version of its mobile website (as opposed to the ordinary mobile website m.facebook.com that also loads pictures).

[75] Dynamic Coalition on Community Connectivity (DC3). (n.d.). Retrieved December 3, 2017, from https://www.intgovforum.org/cms/175-igf-2015/3014-dynamic-coalition-on-community-connectivity-dc3

This effort has led to an unprecedented visibility of policy and legal issues related to Community Networks at the international level, thanks to the participation of scholars (several of them taking part in netCommons) and Internet policy experts at Internet Society (ISOC). Besides the networking of various pre-existing efforts and the new-found mobilizations of major civil society actors on the issue, knowledge and recognition of the importance of CNs are being increasing.

The first outputs of this process are twofold. We are seeing a growing number of policy papers published on the issue. For instance, in the past months, ISOC has released two policy papers directly related to CNs: One on the regulatory stakes associated with CNs drawn from case-studies conducted in India, which stresses the need to "minimise regulatory hurdles for small/rural Internet service providers" and "exempt such networks from certain fees and taxes, in order to promote last mile connectivity, especially by making sufficient spectrum affordably available" (Srivastava 2017); the other on access to spectrum for Community Networks (*Spectrum Approaches for Community Networks* 2017).

These do not yet translate in the official text adopted by Internet Governance fora. But according to Belli, CNs have also become a major issue under discussion during the IGF 2016[76], and more recently at the World Telecommunication Development Conference 2017 in Argentina, where the ITU came close to adopting a resolution dedicated to CNs[77]. The DC3 has however managed to compile major pieces of research on CNs, including work by the netCommons team (Belli 2016; Belli 2017). It has also led a process conducive to the adoption of a Declaration on Community Connectivity, which was elaborated through a multistakeholder participatory process[78]. As of January 2018, ISOC has also created a new Special Interest Group (SIG): the Internet Society Community Networks SIG.

Another major output is the fact that institutions charged with the management of technical Internet resources have channelled funds to help the development of CNs. One example is that of the RIPE-NCC, which allocates IP addresses and ASN numbers in Europe, whose "Community Projects Fund" is targeted at non-humanitarian, not-for-profit projects that are well-suited to applications from CNs[79].

3.6. Conclusion of case-studies

All the different case-studies analyzed in this chapter highlight that both insider and outsider advocacy strategies are already being employed by representatives of Community Networks and their allies. Some CNs have managed to establish key partnerships with other national digital rights players–groups like Netzpolitik or Wikimedia in Germany or La Quadrature du Net in France.

However, very often CNs actually mobilize around issues that are relevant to their values and the wider realm of digital rights, but do not necessarily advance ore represent their immediate interest and the hurdles they face in telecom regulation. Although there does not seem to be strong correlations between governance features surveyed in task 1.2 and advocacy capacities (Guifi and Freifunk representing quite different governance models with overall equally effective impact in their policy activities), this seems especially true of FFDN.

We also see that these capacities are concentrated in the hand of very few people within CNs, and not integrated in full-fledged strategies, nor usually institutionalized in a way that would help advocacy become a fundamental

[76] See a snapshot of these discussions from netCommons Leandro Navarro: Navarro, L. (2016, December 21). IGF 2016: Notes and links around community networking. Retrieved from https://www.apc.org/en/blog/igf-2016-notes-and-links-around-community-networking

[77] As it stands, the final declaration only says "that developing telecommunication/ICT infrastructure in rural, remote, underserved and hard-to-access areas and ensuring the availability of affordable and accessible ICTs is a priority, calling for the identification of effective, innovative, affordable and sustainable solutions" World Telecommunication Development Conference. (2017). Buenos Aires Declaration. Retrieved from https://www.itu.int/en/ITU-D/Conferences/WTDC/WTDC17/Documents/declaration/ba_declaration_e.pdf

[78] The Declaration is available at the following address: https://pad.codigosur.org/GuadalajaraDeclaration

[79] RIPE NCC Community Projects Fund. (n.d.). Retrieved December 3, 2017, from https://www.ripe.net/support/cpf/ripe-ncc-community-projects-fund

component of the CN movement. Quite crucially, the capacity of these groups to coordinate their action at the EU level is still in an emerging, nascent phase, and they sometimes miss out of the opportunity to build advocacy partnerships with people outside of the digital rights world.

4. Recommendations: Organizing for policy change favoring network commons

After an analysis of challenges and opportunities ahead, this chapter develops a number of recommendations to implement possible strategies for developing advocacy activities and build on previous successful experiences.

These recommendations will be presented to and discussed with various communities close to netCommons in the coming months[1], as we engage with them to help them coordinate their advocacy activities and continue the work in WP4. Through this process, we hope to get their feedback and help them refine their approach to regulatory matters.

Before moving to specific recommendations, we first propose to highlight the current political opportunities and challenges for developing these advocacy activities.

4.1. Challenges and opportunities

As the case-studies surveyed above suggest, there are openings for boosting European CNs' ability to develop in advocacy capacities. In this section, we highlight some of the challenges that will need to be overcome if this process is to unfold, as well as opportunities.

4.1.1. Challenges

The first potential challenge is cultural. In seeking broader coordination of political advocacy across national and local boundaries, there is a risk of creating "knowledge cliques," specialized in policy and legal issues but somewhat disconnected from the rest of the participants, unable to maintain sound communication channels with on-the-ground practitioners. This would be all the more dangerous considering the traditional tendency in "tech activism" to reject "*the traditional structures of representation and delegation*" (Milan 2013); there is an anti-institutional ethos among tech activists–which CNs are a form of–that naturally push them toward "beyonder" posture, and a tendency to see the political process as a source of repression and corruption, rather than a field in which their engagement for the emancipation of communication and the democratization of networking infrastructures can find further boost for its actuation. According to her, this is reinforced by the perception that the issues tackled by these tech activist, such as telecom policy, are marginal and too cumbersome for global action because of "*the difficulty of translating them into universal values to be included in the agenda of contemporary progressive movements.*" According to Milan:

> "*the state and supranational institutions are virtually absent (and scarcely relevant as a consequence of this group's refusal to interact, in the sense of dialectic exchange, with institutions. The "other" is thus diminished, although not entirely absent (e.g., activists react if attacked).*" (Milan 2013, pp. 71-72).

The fact that the "tech activists" involved in CNs also intersect with the pro-commons movement–which has developped complex institutional schemes–may counter-balance these negative sociological traits found in some CNs. Indeed, despite our original characterization of CNs as "beyonder" movements ((De Filippi et al. 2015)), the case studies presented in Chapter 3 suggest that political advocacy has been gaining strength and is now seen as an integral part of the sustainability of the network commons, and hence of Community Networks.

[1] In late December 2017, at the Chaos Computer Club Event in Leipzig https://www.ccc.de/ we already engaged in such discussions and dissemination. The outcome of these efforts will be reported in D.4.3 and D6.2.

However, some of the challenges in building trans-European political advocacy capacities might result from political differences among different political approaches to commoning. Papadimitropoulos sees three major political currents supporting the commons: the liberals, who anchor their defense of the commons through liberal theory and as middle-way between the state and the market; the reformists, who argue for the gradual adjustment of capitalism to the commons with the aid of a "partner state"; and finally the radical anti-capitalists who favor the commons "against and beyond" capitalism (Papadimitropoulos 2017).

While highlighting the virtues and limits of each of these trends, and siding with reformist authors, apadimitropoulos points to the challenges and "internal contradictions" of the movement, such as "elitism, aristocracy, monarchy, autocracy, lack of transparency and solidarity, exclusion, discrimination, racism, precarious volunteering and activism, the domination of self-interest and competition over solidarity and cooperation, the rational mastery of techno-economism." According to him, if the defenders of the commons are to overcome these contradictions, "a global institutional reform, followed by a number of inter-local and international principles, is *sine qua non*." So this is both the promise and pitfalls of organizing translocal and transnational advocacy capabilities: the risk that political differences among CNs may prevent them from finding a common voice and articulating coherent policy proposals, or agreeing on solutions (to questions such as: "should we disobey national law to respect European law on data retention?").

Another potential challenge has to do with a possible over-investment in political advocacy, to the detriment of the development of networks and the scaling-up of commons-based Internet access provision. In the history of social movements, shifts in organizational forms and strategic priorities from service provision to advocacy have been observed and attributed to both conscious (but constrained) strategic shifts related to changes in the political opportunity structure (Minkoff 1994). For now, that risk may appear very distant, and we strongly feel that more needs to be done to systematize and improve advocacy capacities across European CNs. But for some of them at least, the tendency of some coordination bodies formed at the national level to focus on overarching political and legal issues (on topics which might not be of the highest political relevance for the development of CNss), while neglecting the scaling up of local networks and increasing the number of participants is real.

4.1.2. Opportunities

The first current opportunity has to do with the swelling interest regarding Community Networks. Thanks to EC-funded research projects like CONFINE, netCommons, and others around the world; thanks also to the emergence of transnational advocacy networks in digital rights and Internet governance fora; thanks in particular to the determination of CN practitioners around the world who demonstrate the many benefits of this way of building networks, CNs are coming into focus in places where telecom policy is being crafted, places where they had historically been completely neglected. This creates many avenues to acquire and transfer knowledge about how policy changes can best serve their goal. There is a mounting momentum.

This structure of opportunity is only made stronger by the fact that, more than 25 years after the publication of Elinor Ostrom's *Governing the Commons* (Ostrom 1990), there is a growing recognition of commons-based modes of production and service provision as a viable policy path. At the level of the European Union, the "Commons Network" –the already-mentioned think-tank advocating for commons-based policies in Europe[2]– has been working to highlight the potential commons-based policies for giving a new impetus to the European project. According to one of the co-founder of the initiative, Sophie Bloemen:

> "*The crisis of the European Union begs for new, unifying and constructive narratives–alternatives to the right-wing populist and nationalist wave that is getting fiercer every day. A 'commons' approach holds the potential for a unified vision towards an alternative economy, a Europe from the bottom-up, and an ecological economy and way of life. The idea of jointly stewarding shared resources, community, and a generative economy can find resonance with a diverse range of citizens.*" (Bloemen 2017).

[2] http://commonsnetwork.eu/approach/

In that spirit, the Commons Network convened a preparatory meeting in the North of Paris in May 2016, a "Commons Assembly" in December 2016 in Brussels, and another Commons Assembly in October 2017 in Madrid. The meetings aimed at connecting local and transnational local commons movement in Europe and were attended by netCommons participants (Melanie Dulong de Rosnay, Panayotis Antoniadis) and CNs' representatives (Sarantaporo and Guifi). In 2016, "*over 150 Europeans came to Brussels, and in a symbolic move of reclaiming Europe, met for half a day in the European Parliament. They came to develop new synergies, express solidarity and to discuss European politics, as well as policy proposals. Europe's democratically elected Members of the European Parliament exchanged views with the 'Commons Assembly', made up of a myriad of commoners, activists and social innovators from many different corners of Europe*"(Bloemen 2017). netCommons' Panayotis Antoniadis introduced many participants to the notion of "network infrastructure as a commons[3]."

These initiatives show the growing coalition and cross-mobilizations among sector-specific commons movements across Europe. They have received backing from FP7 and H2020 research programmes, and are starting to receive certification from certain policy-making fora. Recently, the European Committee of the Regions adopted an opinion report in which it correctly identifies some of the core characteristics of the commons-based economies, such as a:

> "*peer-to-peer approach in which every user can be a provider and consumer at the same time, or even be involved in the platform governance (...). If the actors involved do not just share a resource but collaborate to create, produce or regenerate a common resource for the wider public, the community, they are cooperating, they are pooling for the commons.*" (Brighenti 2016).

At the local level too, public policies aimed at promoting common-pooled resources are getting traction. This is especially true in Spain where the election of citizen-platforms like "Barcelona en Comú" and "Ahora Madrid" have implemented such policies, and are offering new institutional relays for local activist groups engaged in the defense of the commons, forcing other institutional actors originally not open to their proposals to take into account these new economic realities. Besides these most visible initiatives, policy-thinking at the local level can be seen as moving toward a greater recognition of the commons as a viable and sustainable alternative to traditional policies, with more frequent references to notions like the "urban commons", "community farming", "fablabs", etc.[4]

According to a recent report by the Commons Network:

> "*in many European cities–including Barcelona, Amsterdam, Bologna, Warsaw, Athens Belgrade and Berlin–we can see collaborative initiatives such as cohousing projects that propose sustainable solutions to the lack of affordable and environmentally sound housing, renewable energy, community-based food culture and the creation of fair localised economic. Other relevant examples include self-managed community cultural and educational projects, renewable energy coops or urban gardening in open, abandoned or re-used urban spaces. Indeed, much of the revolution in terms of local initiatives is taking place in cities, where cultural and civic initiatives are claiming urban public spaces such as squares, parks, abandoned buildings and vacant lots as collective resources of urban communities. Sometimes local commons initiatives are sparked by the necessities created by economic crisis or in response to political powerlessness or just fuelled by the need for social-ecological connectedness, and a resistance to the commodification and privatisation of resources.*" (Bloemen and Hammerstein 2017).

This shift of paradigm invites new forms of democratic participation and policy-making. For policy-makers, it means that "citizen initiative and collaboration are regarded as under-leveraged energies that —with suitable government assistance-– can be recognized and given space to work. Government is re-imagined as a hosting

[3]European Commons Assembly. (2017). Retrieved December 5, 2017, from https://netcommons.eu/?q=news/european-commons-assembly

[4]There remains much ambiguity around these terms of course, but their growing presence in the policy field is in and of itself an opportunity to deepen the political debate on the Commons and resolve some of its contradictions.

infrastructure for countless self-organized commons" (Bollier 2015). In this context, we have observed a real willingness on the part of some key actors in European CNs of invest time and resources in policy advocacy. Their ability to speak of common voice, whether through the open letter of March 2017 or during the workshop organized by netCommons at the EU Parliament in October 2017, are recent illustrations.

4.2. Recommendations

While our case-studies show that some Community Networks can already rely on significant legal skills and political leverage, there is a shared feeling among the practitioners we interviewed in the context of this report that more can and needs to be done. And indeed, as we have already stressed, the technical and organizational solutions tinkered by CNs have the potential to change power dynamics in the crafting and implementation of telecom policy, and more generally of Internet policy.

But before delving into recommendations that we suggest to CNs members to help them develop sustained advocacy capacities, let us say a word about "advocacy capacity-building." The term is often employed in development and environmental studies. In these academic spheres, capacity is defined as "the ability to perform appropriate tasks effectively, efficiently and sustainably" and implies the following components: specified objectives (including vision, values, policies, strategies and interests), efforts (will, energy, concentration, work ethic, etc.), capabilities (intelligence, skills, knowledge, etc.), resources (including human, technological, cultural, financial), work organization (planning, designing, sequencing and mobilizing) (Blagescu et al. 2006).

So when we talk about "advocacy capacity-building" in the context of CNs, we point to the process by which CNs can upgrade the collective skills on which they rely to influence policy development, but also to develop and upgrade the procedures and organizational designs devoted to these activities, in particular with the objective of fostering synergies that can can make the best use of existing capacities. In this regard, our recommendations involve four crucial steps detailed in the following Sec. 4.2.1 to Sec. 4.2.4

4.2.1. Build internal, shared legal and policy skills

Our first recommendation consists in developing internal skills regarding the legal rules applicable to CNs and following major policy decisions that affect their activity, whether it is at the international, European, national or local levels.

The most structured and professionalized Community Networks in Europe have of course people among their members or their entourage who can provide legal and policy advice. Virtually all of them have also links with free software and/or digital rights advocacy groups at the regional, national or European levels. However, these groups seldom nurture comprehensive skills regarding the very technical and complex issues related to telecom policy, and beyond topics that are of immediate concern to their operation and development, they sometimes overlook crucial legal issues and, as a consequence, are sometimes not fully aware of the legal framework even when it is actually designed to protect the value that CN hold dear.

Following the work conducted by netCommons in WP4 on the legal obligations of CNs, there is a need for each CN to identify and/or recruit people that can follow policy development and offer advice to the rest of the community. This is harder than it looks. Federation FDN (FFDN) set up a working group on regulation in 2016 to interact with the National Regulatory Authority, while another one was given the task of putting together clear guidelines on data retention. Eighteen months later, although there have been important discussions and some work has been carried on, the overall track record of these groups led by volunteers is rather disappointing. In this respect, moving towards clear guidelines will prove very important in the third and last year of the netCommons project, and the CNRS team will make sure to stimulate that the objective is reached at the French level, before moving to pan-European guidelines.

The netCommons team will play a key role in facilitating the appropriations for these guidelines by various communities in the months to come, but developing internal policy skills requires investing some time and

effort to make them an integral component of the life of a CN where they are lacking. That might mean holding workshops to educate CN members about the legal aspects and legal risks associated with operating a CN and allowing reciprocal exchanges between participants focused on the technical operation of the network and those with legal skills, or writing briefs on major policy developments affecting the life of a CN (whether it is on telecom regulation, data retention, surveillance laws, spectrum allocation, and more generally, tax law and non-profit status.).

A potential basin to recruit and train people with a legal background regarding the legal and policy aspects of CNs is to reach out to local law faculties, especially those who already have–or are interesting in setting up–legal clinics or providing internships. Legal clinics are programs within law schools that provide hands-on legal experience to students by having them work for public-interest projects of their local community. Law students may thus help CNs by advising them on the "terms of use" of new services that they are launching, analyzing public tenders (for instance those delegating the management of a publicly-funded network to a private operator) to ensure that it is legal and/or try to influence the relevant public authority to ask for the inclusion of specific clauses that will guarantee access to this infrastructure on fair conditions for CNs, among many other things. Not only can this help CNs boost their internal legal and policy skills, but could also contribute to ensuring that these future legal professionals will understand the political implications of telecom regulation and increase awareness in the legal profession about the hurdles faced by commons-based initiatives.

To enable the circulation of knowledge an expertise, another example is provided by the circulation of people between CNs, digital rights organizations and netCommons staff: a legal analyst started in a CN as a volunteer, was then hired for a few months by CNRS to perform legal research, before being hired by an advocacy group, to perform basically similar tasks of helping CNs navigate legal and policy constraints. Informal secondments and visits, on the model of academic fellowships, could be supported in order to foster circulation of knowledge and positive cross-fertilization.

Once such legal and policy skills are developed, another possible approach is to ensure that CNs have a sense of the sort of action repertoire that is relevant to act on a given issue. Mixing different repertoires can help: open-letter and manifestos, in-depth analysis of the law, meetings with regulators, explanatory video, demonstrations, petitions, campaigns with the distribution of boxes ... In this sense, documenting and sharing with fellow network commoners the existence and formats of interactions with policy-makers is important (this report being a first modest contribution to such an objective). Such knowledge-sharing can help people that are new to political advocacy to discover its importance, get in touch with people in the community who can share their know-how, help them engage in similar actions and build on the work of their predecessors. Community events should make such policy efforts visible to the rest of the community, with equal attention that to the other aspects, whether they are technological, governance or economic sustainability aspects.

4.2.2. Develop open processes for arbitrating, prioritizing and enacting legal and policy strategies

Once a CN has ensured that its members have a basic understanding of legal and policy stakes, the time will come to compare the CN mission, and how this mission and purpose is impacted by law and policy.

We already touched upon this aspect in D1.3 (Crabu et al. June 2017). This deliverable, discussing the governance of CNs, stressed how important it is for these communities to clearly articulate their mission while reflecting the foundational values of the community and making them explicit. Now, once this is done, and after minimal legal and policy knowledge has been integrated by the community, there will come a time when a contradiction between the two will be made evident. In the face of these contradictions, how is the community to react? Should it blindly follow legal rules while setting their values aside? Should it instead promote interpretations of the law that can help remain coherent with its values? For instance, in the aftermath of the 2014 and 2016 rulings by the EU Court of Justice invalidating the 2006 data retention directive (*Digital Rights Ireland* and *Tele2 Sverige* rulings), **there is a strong legal case to make that national laws mandating blanket data retention on Internet access and hosting providers are now illegal**. That creates a legal vacuum that

has led some activist hosting providers to refuse to comply with these obligations[5]. But of course, such a stance creates legal risks, and is questionable. These are complex, but very concrete ethical and tactical questions that CNs must be able to raise, debate and arbitrate while respecting their democratic governance features. There is a need to define processes by which participants to a network commons, as members of a CN are, come to minimal agreements about which stance should be adopted, and how organizations that differ from the majority can preserve their autonomy while still being part of the movement, etc.

This example regarding contradictory legal interpretations speaks to the broader issue of debating and prioritizing strategies. We have found that often times, these issues are arbitrated by a small circle of leaders, and by not extending these circles to a wider set of participants, CNs and their allies might miss out on very useful insight from the community, or fail to spark greater participation from the community, or act in a way that might be seen as lacking legitimacy. This is why, whether at the local, national or European levels, decision-making processes and avenues for participation will need to be streamlined for discussing political advocacy and litigation Where they do not exist, CN will need to create spaces for defining these issues.

This can ensure that the right priorities are set, that these can be acted upon effectively through practical advocacy tactics. As CNs work towards political advocacy, two preliminary things are of particular importance. One is to have established contact channels with policy-makers, for instance at the local or national levels. Who are the people that matter for telecom policy in a given context and who are those that can be turned into allies? Once they are identified, asking for a meeting is a good way to establish a sustainable contact channel with them, and that will facilitate any future advocacy work. Another important issue is to allow the community can come up with the best political frames to share with partners and the general public, for instance by developing effective public narratives with analogies (like the "organic" Internet[6]), by gathering numbers and documentations on the impact of CN. All this material will be crucial in ensuring the success of advocacy strategies. National and European gatherings of the CN movement in Europe, like the Battlemesh summit, the Chaos Computer Congress and other similar event are appropriate spaces for nurturing these discussions, and actually they have been increasingly used for that purpose in recent years.

4.2.3. Foster coordination and nurture partnerships among CNs and their allies to influence EU policy

The discussion in Sec. 4.2.2 leads to another important question. Building internal skills might be enough to engage in policy-making in front of local authorities, which of course can be key in providing CNs with the legitimacy and resources to scale up their projects locally. But at the national and European level, effectively engaging in sustained political advocacy will require creating better coordination between communities. Tackling "methodological nationalism" in activism and advocacy seems as important as it is for researchers (Scheel et al. 2016).

In this regard, the open letter of March 2016 and the setting up of the Telecommons mailing-list gathering all members active and/or interested by policy in European CNs was a first step. But it is one for which CNs relied on external partners (netCommons in particular) rather than an endogenous process. Now coordination already exists at some levels. Lists like the Battlemesh mailing list act as a tool for exchanging news and organizing joint events and collaborating on technical aspects. Bilateral exchanges between CNs from different countries has also long been a core component of the movement's dynamism. Finally, forms of transnational cooperation have also emerged through academic and Internet governance fora. But for discussing telecom policy and circulating knowledge about policy and legal stakes in an open and transparent manner so that newcomers can join the discussion, for deciding on common priorities and coordinating joint campaigns, for documenting past advocacy campaigns and reflexively analyzing them so that lessons can be drawn and advocacy capacities improved overtime, there is virtually nothing. Even at the national level, these forms of coordination are some-

[5] *Réquisition sur Mamot.fr : LQDN s'en tient aux droits fondamentaux* (2017). URL: https://www.laquadrature.net/fr/requisition_mamot.

[6] Panayotis Antoniadis (2017). *How to build a more organic internet (and stand up to corporations)*. URL: http://theconversation.com/how-to-build-a-more-organic-internet-and-stand-up-to-corporations-70815.

times lacking, with the exception of the German network of organizations and the coalition around Freifunk providing analysis of legal cases and cross-posting them on various websites.

This lack of coordination is not necessarily specific to CNs. Even among various branches of "digital rights activism", many groups in Europe feel like more could be done to foster commons actions. In the field of digital rights litigation for instance, the coordination is emergent, and was catalyzed by funding from the Open Society Foundation with the help of the London-based non-profit Privacy International. Together, since 2015, they have organized meetings, conducted reports and interviews in the field and decided to put together a new organization specifically dedicated to fostering such coordination and to funding specific cases. Besides this organizational innovation that provide structures for coordination, however, another initiative was the creation of a closed mailing-list were people from various groups working on strategic litigation across Europe can share insights, ask questions, request collaboration.

The political and legal defense of CNs has no specific institution or communication channel in Europe. So the first step is to create an avenue for discussion. netCommons, worked with La Quadrature du Net in March 2016 to create a mailing list–entitled "Telecommons"–to which all the signatories of the open letter of March 2016 subscribed. This is a first step in terms of coordination: We now have a large group of people from CNs and other non-profit organizations whom we know are interested in the topic. Among them, some have strong legal and policy skills as well as experiences in mounting advocacy campaigns. Since then, netCommons has kept on working with La Quadrature du Net to follow-up on the open letter by documenting the legislative process on the Electronic Code of Communication (with briefs summarizing stakes and amendments which are presented in annex), and will continue to do so.

This process is driven by a group of four to five people based in France; it is not a collective bottom-up and autonomous endeavor by CNs themselves. It is a first step for which more work is needed so that CNs can take the matter into their own hands. So in the coming months, netCommons will continue to engage in a dialogue with key communities studied and accompanied by the project, not only to find ways to make our three-year long research project useful in the long-run for existing and potential CNs, but also to make the movement more visible and organized politically.

The key question to avoid the creation of a new irrelevant structure (e.g., a new IGF for CNs), however, is to ensure that people who are already mobilized in the day-to-day operation of CNs and who often do so as volunteers will be able to invest time in these discussions. Or, put differently, there is a need to ensure that these new coordination channels will be used and remain dynamic. The growing number of people mobilized in favor of this movement might be enough, but this is something that need to be carefully debated and thought through based on the experience of CN practitioners: What would do they expect from greater collaboration? What would they like to share with CNs in other countries? What would they want to learn? Is Europe the right perimeter? If so, how do we articulate European advocacy with ongoing initiatives at the international level?

Once we have reached an agreement on the need, we will address the question of the right tools for sustaining such coordination. This might be a communication channel attached to an online space with basic information about the CN movement in Europe, a place for storing and sharing resources, debating both technical and political aspects. Until now, the Telecommons mailing-list has not lived up to its potential for coordination (it is mostly used for disseminating announcements and calling for signatures, and usually by non-CN groups). But maybe it is simply the wrong tool. A lot of non-profit and activist organizations, convinced that mailing-lists are a sub-optimal coordination tool, are currently adopting discourse.org, a free-software, forum-like platform that is simple yet flexible enough to avoid information overload while allowing for meaningful discussions. Would that be a better tool for organizing coordination at various levels (national, European, international)?

Finally, another crucial question is whether advocacy capacities for European CNs need to be professionalized, i.e., whether there is a need and the possibility of hiring a small staff dedicated to coordinating advocacy at the European level, which means also being able to relay national and local campaigns or even organize pan-European mobilization. Following the model of non-profits dedicated to the knowledge commons like the Wikimedia Foundation or Communia international association on the digital public domain, which are sharing

an advocate based in Brussels, but also NGOs like the Trans-Atlantic Consumer Dialogue, European CNs could decide to create an organization representing them at the European level, and staffed with one or two mutualized policy officers based in Brussels.

What would be the role of this staff acting as the lead political advocates of EU CNs? They could track legislation, respond to consultations, meet various stakeholders at the European Commission, the EU Parliament or institutions like the European Committee of the Regions, liaise with other Brussels-based digital rights, telecom, and consumer organizations, and organize advocacy campaigns. This would be an interesting way to build greater expertise on the complex public-private assemblages taking place in Brussels where most of European telecom policy is made, and intervene more adequately in the policy-making process. The priority of this dedicated staff would be to build knowledge on telecom regulation, and in particular its most economic aspects, which are largely under-covered by civil society actors (besides consumer organizations whose focus is narrower than that of CNs). For issues of importance to CNs, but for which advocacy capacities already exist in civil society (for instance on data retention), it would join and relay actions conducted by others, and in particular digital rights NGOs like EDRi, or ISOC, trying to identify the potential contribution of CNs to this efforts.

Another potential solution is to push existing organizations advocating for rights and commons-based infrastructures in the digital realm to cover these issues. This is what La Quadrature du Net is starting to do in France, working closely with the Fédération FDN and netCommons researchers on the Telecoms Package. In Germany, Digitale *Gesellschaft* is playing a similar role with Freifunk. At the European level, the Brussels-based EDRi[7] would be a more natural candidate to coordinate the European defense of CNs.

The question, of course, is how to fund this extra staff. Again, that is a question for CNs to answer. Would it be possible that European CNs accept to pool a very small fraction of their revenues to provide funding for it? Would foundations historically associated with the defense of digital rights, like the Open Society Foundation, be willing to channel funds for the defense of Community Networks? Again, this is something that will need to be discussed in the months to come, and on which netCommons will report at the end of the project (e.g. in D4.3).

4.2.4. Team up with the pro-Commons movement and nurture intersectionality

Beyond the internal coordination mechanisms that still need to be strengthened, there is a lot of potential for CNs to partner with groups that operate in a totally different realm, albeit with the same democratic values, similar end-goals and like-minded approaches. In this respect, as should be clear by now, one of the most promising avenue for a coalition and the framing of a narrative is the commons. In this respect, community farming, movements fighting for the urban commons and many others are natural partners for CNs. At the local level, that means partnering with groups and institutions who share similar concepts in resource management, local empowerment and self-reliance, and these alliances are already taking place, especially in Spain or in Germany, where Freifunk has for instance partnered with churches and museums. They might be a need to develop and share strategies that can deepen these connections, for instance by organizing "local Commons Assembly."

According to Michel Bauwens:

> "*Assemblies of the Commons are local or affinity-based association of citizens and commoners, bringing together all those who contribute and maintain common goods, material or immaterial. It is based on a social charter outlining the shared values and/or practices. An Assembly of the Commons can formulate policy proposals that enhance civic infrastructures for the commons, address and influence authorities or self-organize toward meaningful actions. These can range from town and village, to bioregional, national or continental levels, and are closely connected to the*

[7] https://edri.org/

Chambers of the Commons [8]"

The first scale where these can be organized is the local level, where re-building civic power and citizen agency is most important to build-up resilience in our economies. Then, these can be set up nationally.

At the European level, such alliances between CNs and pro-Commons movement are starting to take shape. Since 2016, netCommons researchers have helped bring recognition of CNs as an integral component of the Commons movement along with CNs like Guifi, in particular through its participation to the European Commons Assembly. If European CNs manage to engage in coordinated action at the EU level, it will be key for them to engage with these growing networks devoted to the defense of commons-based resources.

The risk of coordinating with other partners is that political differences might prevent from finding a common ground, and to consume scarce human resources which could have more impact if used elsewhere (e.g., to scale the network). Joint mobilizations on a specific topic will allow to identify potential allies and build trust. Learning from experiences of coalitions in other fields can also be useful: environmental organizations, libraries for copyright reform, have been successful. An example of distributed political action is the adoption of a treaty challenging for the first time the dominant established vision of copyright by right-holders to protect rights of the more vulnerable (Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled), through the continuous pressure of an heterogeneous coalition (Rosnay 2016).

4.3. Summary of recommendations

4.3.1. Build internal, shared legal and policy skills

- Identify and/or recruit people that can follow policy development and offer advice to the rest of the community.
  - Reach out to local law faculties, especially those who already have–or are interesting in setting up–legal clinics or providing internships.
  - Organize the circulation of expertise between CNs, academia and NGOs, for instance on the model of academic fellowships.
- Identify the legal rules applicable to CNs and following major policy decisions that affect their activity, whether it is at the international, European, national or local levels.
- Allow for reciprocal exchange between participants focused on the technical operation of the network and those with legal skills.
- Organize internal events to train the community on legal issues, offering guidelines on good practices to comply with the legal framework.
- Educate CNs participants and the public by writing on major policy developments affecting the life of a CN (whether it is on telecom regulation, data retention, surveillance laws, etc.).
- Organize public events that can increase awareness across various audiences, especially in the legal profession, about the hurdles faced by commons-based initiatives.
- Document campaign actions, interactions with policy-makers, framing and repertoires used during mobilizations so that these can be replicated by others, and/or become part of reflexive learning process.

4.3.2. Develop open processes for arbitrating, prioritizing and enacting legal and policy strategies

- Identifying legal vacuums and other policy issues and hurdles affecting the development of a CN.

[8] See: http://wiki.p2pfoundation.net/Assembly_of_the_Commons.

- Discuss the concrete ethical and tactical questions facing CNs, for instance between different possible interpretations of the law, or of case laws.
- If a consensus cannot be reached, find minimal agreements about which stance should be adopted, and how organizations that differ from the majority can preserve their autonomy while still being part of the movement.
- Ensure that there are processes in place to allow all interested participants to join the discussions on policy, so that those enacting the shared priorities will have more insight and legitimacy.
- Identify key policy-makers at the local or national level and ask for a meeting, where your policy agenda and needs will be presented.
- Develop effective public narratives with analogies (like the "organic" Internet) and document the impact of CNs.

4.3.3. Foster coordination and nurture partnerships among CNs to influence EU policy

- Engage in a process of setting up new coordination mechanisms at the EU level
- In doing so, address the following questions:
  - What do we expect from greater collaboration?
  - What would we like to share with CNs in other countries? What would they want to learn?
  - How do we articulate European advocacy with ongoing initiatives at the national international levels?
- Decide whether advocacy capacities for European CNs need to be professionalized. While doing so, address the following questions:
  - What would be the role of this staff acting as the lead political advocates of EU CNs?
  - How to fund this extra staff?
- Reach out to allies in digital activism, develop shared strategies the European level.

4.3.4. Team up with the pro-Commons movement and nurture intersectionality

- Nurture partnerships with movements focused on local empowerment and self-reliance.
- Act at the local level where re-building civic power is most urgent to ensure the resilience of our economies.
- Find pro-Commons organizations at the national level and reach out to them.
- Continue integration at the European level with the European Commons Assembly
- Explore what joint mobilizations can be organized to act together, build trust and gain recognition by policy-makers.
- Reach out to other coalitions in other fields (e.g. environment, organic agriculture, fablabs, local farming) and learn from their experience.

5. Conclusions

We started this Deliverable underlining the importance for CNs to develop advocacy capacities and find a common voice to ensure their long-term sustainability and help them develop their activities. In light of this goal, we studied and documented specific cases where leading CNs in Europe engaged in advocacy, oftentimes with the help of other activist organizations. In Chapter 4, finally, we highlighted some of the opportunities for building advocacy capacities, and made a few recommendations to go about that task.

As we have stressed, this Task 1.3 work, reported in this Deliverable, is the beginning phase of a process that will last till the end of the project, and we hope also beyond it. In the coming months, in part through our efforts regarding governance and legal analysis (WP4), we will continue to work with CNs to help them advance their advocacy capacities, informed by the research we have conducted and positive feedback received so far, so as to ensure the long-term relevance of our work for the development of CNs in Europe. While doing so, we need to remember that building advocacy capacities, especially in a policy area like telecommunications, is a long-term process, and we need to lay the foundations for long-term social awareness and action, rather than search for immediate results. Looking for quick fixes and short-term results or one-size fits it all recommendations is likely to miss the mark.

While we will strive to be useful, we will also need to pay constant attention to the value-systems and methods of the CNs we interact with, ensure that the knowledge we have built can be disseminated and acquired by members of the communities we work with, allowing them to understand each other and progressively build a collective culture. Fostering tans-national coordination is important, but we also need to remember that local communities are the ones that matter most; that they are the ones that this coordination process is to serve, and that advocacy capacities need to be able to channel their needs and demands, thus also at local scales and in local languages, rather than bypass them altogether.

5.1. Contribution to netCommons goals

The work carried out in Task 1.3 '*Advocacy capacity-building: Maximize the impact on the policy maker*' contributed to achieve netCommons sustainability goals in the following ways:

CNs knowledge on policy is uneven. The deliverable explains why advocacy is key to ensure legal sustainability and growth for CNs, and how CNs can contribute reforming telecom policy.

CNs lack of human resources and time to lead advocacy efforts. This deliverable surveys examples of advocacy tools and practices of CNs so that efforts may become more effective even with limited resources and get greater leverage at the local, national and European levels. It also presents models of collaborations with other civil society initiatives on the commons and digital rights fields in order to mutualize forces and develop long-term partnerships.

CNs lack of experience with policy-makers. The deliverable provides recommendations to gather legal analytic skills required to perform work similar to Task 4.1. It also develop governance internal processes proposed in Task 1.2 to define underlying political values prior to developing policy positions to contribute to the legal framework key questions identified in Task 4.1, and developing or improving decision-making processes for these.

Policy-makers are not aware of CNs. The work led during this task contributed to raise awareness on the commons-based alternative models and values carried by CNs to all MEPs involved in telecommunications law reform; also UNESCO indicators on Internet Universality never considered the existence of

CNs, but thanks to the contacts created by netCommons, they are likely to contain relevant indicators for the well-being of CNs, as well as considering the presence and good health of CNs as positive indicators of Internet Universality.

5.2. Impact of the work

Besides contributing to achieve the scientific, societal and policy goals of netCommons, Task 1.3 had, and will continue to have, a direct impact on CNs advocacy organizational improvement by providing feedback and support to CNs to improve their advocacy capabilities (O1.3).

We have:

- Documented existing advocacy efforts and collaborations;
- Worked with CNs to document and report their previous experiences of advocacy so they can be shared among CNs;
- Initiated a mailing-list dedicated to the legal defense of CNss, Telecommons;
- Identified the policy conditions to make an Alternative Internet possible;
- Written an Open Letter to raise awareness on CNs legal sustainability issues;
- Contributed to the Telecom Package legal reform by producing notes analyzing key amendments and making voting recommendations, and by that, proposed normative changes and helped policy-makers to support policies that can foster a sustainable Internet;
- Organized a workshop in the European Parliament to raise awareness of CNs legal issues and societal impact of providing a fairer ICT ecosystem;
- Have representatives of 3 CNs to discuss with 3 MEPs, and receive feedback on how to improve advocacy framing and practices for more efficiency;
- Developed a collaboration with the European Commons Assembly;
- Initiates a collaboration with UNESCO Freedom of Expression (FOE) section.

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A. Open Letter to EU Policy-Makers — Policy Recommendations for sustaining Community Networks (March 2017)

Preamble

We represent European Community Networks, a growing movement of organizations that operate local communication infrastructures, sometimes federated at the regional or national levels. These networks, most of which also provide access to the global Internet, are operated as a commons. That is, rather than being driven by for-profit motives, our key focus is on providing connectivity while striving for democratic governance, social inclusion, education, and human rights with respect to communication technologies.

Our organizations vary considerably in terms of sizes, types of network infrastructures and political cultures. Yet, despite this diversity, we are united by the common objective to build networks that meet the communication needs of humans (rather than those of objects and machines), through networks that are built and run by our communities, for our communities, focused on local empowerment, affordability and resiliency.

Today, we collectively provide broadband connectivity not only to tens of thousands of individual European citizens and residents in rural or urban settings, but also to organizations including small and medium sized companies, schools, healthcare centers, social projects and many more. In many cases, we have out-competed mainstream operators, by providing cheaper and faster Internet connectivity than incumbent players. Thanks to our infrastructures and through our various activities, we foster scientific and engineering experiments, we help local hosting and service providers come together to mutualise investments and share costs, we support digital literacy and data sovereignty through workshops and other educational activities.

Yet, despite our achievements, policy-makers at the national and European levels have so far mostly neglected our existence and specific regulatory needs. Worse, regulation is often hampering our initiatives, making the work of our participants and volunteers harder than it should be. This is why, as you start working on a European code of electronic communications, we decided to contact you and voice our ideas and recommendations regarding the future of the legal and policy framework regulating our activities.

1. Lifting unnecessary regulatory and financial burdens

We first ask you to review the regulatory framework and get rid of unnecessary regulatory burdens, such as fees or red-tape that are unnecessary or illegitimate when imposed on small non-profit entities. In Belgium for instance, the registration fee that telecom operators must pay to the NRA is at 676€ for the first registration, plus 557€ every following year (for those whose revenues are below 1M€, which is the case for many community networks). Even such small fees can hinder the growth of small networks that efficiently serve tens of households. In France, Spain and Germany, it is free, which might explain why the community networkmovement is much more dynamic in these countries. The proposed code for electronic communications aims to harmonize procedures for declaration fees (first registration) as well as administrative charges (annual fees). EU lawmakers must ensure that the fees and charges imposed by national NRAs are null or negligible for non-profit ISPs and reasonable and proportionate for micro and small businesses. Likewise, taxes designed for large corporate firms in the telecom sectors should not apply to smaller, non-profit operators.

2. Getting rid of third-party liability when sharing Internet access

Several laws seek to prevent the sharing of Internet connections amongst several users by making people responsible (and potentially liable) for all communication made through their Wi-Fi connection, and create legal risks for people sharing their connection. In Germany, rights-holders have used a ”secondary liability” doctrine

to chill the growth of the community networks movement. In France too, copyright law imposes a secondary liability regime that creates significant legal uncertainty for people sharing their network connections with other users. The so-called ”mere conduit”, inscribed in EU law since 2000 in the directive on information society services, needs to be guaranteed and expanded to small-area wireless access points. In the same spirit, contract clauses that forbid subscribers to share their connections with others should be prohibited. Promoting a right to share Internet connections is all the more vital considering the economic and ecological crises, as well as the rapid increase of populations that cannot afford access to the Internet. In this context, connection sharing can play a critical role in fostering a more equitable and sustainable use of telecommunications infrastructure.

3. Expanding the spectrum commons

It is not just Internet wireless access points that can be shared, but also the intangible infrastructure on which radio signals travel. Wi-Fi, as an unlicensed portion of the spectrum and therefore a commons, is a key asset for community networks willing to set up affordable and flexible last-mile infrastructure. However, these Wi-Fi frequency bands are currently very limited. Not only are they getting increasingly subject to congestion in densely populated areas, they are also exposed to new technical standards that use the so-called ISM frequency band (like LTE-U) that hamper the reliability of Wi-Fi communications. Last but not least, existing frequency bands for Wi-Fi (5,6 Ghz and 2,4 Ghz) have physical constraints that prevent them for being used for longer radio links. In the face of such challenges, a new approach to spectrum policy is needed. Policy-makers should expand unlicensed Wi-Fi bands. Other types of frequencies should also be made available either on an unlicensed (preferred scenario) or, if not possible, based on affordable and flexible authorization schemes. Such frequency bands for instance include so-called white spaces in lower frequencies (which allow for cheap and resilient long-distance links), as well as the 12Ghz and the 60Ghz bands (for which radio equipment is affordable and which can help us build high-bandwidth point-to-point radio links). Once made accessible to community networks, they can help roll-out and expand cheap and resilient wireless infrastructures.

4. Updating open-access rules in telecom infrastructures

Networks built with taxpayers money should also be treated as a commons and, as such, remain free from corporate capture. Today, their management and exploitation is often delegated by public authorities to corporate network operators. These entities usually adopt aggressive pricing schemes designed for incumbent players that make it extremely costly for small access providers to interconnect with these networks. Access to these publicly-funded networks for non-profit entities like community networks as well as small businesses should be guaranteed, at a reasonable and proportionate cost. Similarly, community networks often cannot have access to the private local infrastructures of incumbent players, despite the fact that these are the only way to connect willing subscribers. Indeed, in many European markets, the deployment of optical fiber networks is (re)creating monopolistic conditions on local loops through pricing schemes which preclude small actors from accessing these private networks. Policy-makers and regulators should ensure that every area is covered by at least one telecom operator with a so-called “bitstream” offer affordable for smaller players.

5. Protecting free software and user freedom in radio equipment

In 2014, the European Union adopted Directive 2014/53 on radio equipment. Although the Directive pursues sound policy goals, it might actually impair the development of community networks. Indeed, community networks usually need to replace the software included by the manufacturer in radio hardware with free and open source software especially designed to suit their needs, a collective process that improves security and encourages the recycling of hardware, among other benefits. Article 3.3(i) of the said Directive creates legal pressure for manufacturers of radio devices to ensure the compliance of the software loaded on these devices with the European regulatory framework. As a result, there is a strong incentive for manufacturers to lock down their devices and prevent third-party modifications of the hardware. We therefore ask policy-makers to provide a general exception for all free software installed on radio devices by end-users and operators (the latter being liable if their software lead to violations of the regulatory framework), so that users’ rights are safeguarded.

6. Abrogating blanket data retention obligations

Community networks strive to safeguard human rights in communication networks, and in particular the right

to privacy and the confidentiality of communication. While we welcome recent rulings by the Court of Justice of the European Union holding that indiscriminate retention of metadata violates the Charter of Fundamental Rights, we are concerned about several member states' willingness to circumvent these rulings to protect capabilities for indiscriminate surveillance. As EU lawmakers start discussing the overhaul of the ePrivacy Directive, we call on them to oppose any blanket data retention obligations and close existing loopholes in EU law to ensure that only targeted and limited retention obligations can be imposed on hosting and access providers.

7. Bringing direct and targeted public support

Countless other policy initiatives can help support community networks and the significant associated benefits they bring. Such policies include small grants, crowd-funding and subsidies to help our groups buy servers and radio equipment, communicate around their initiative, giving them access to public infrastructures (for instance, the roof of a public building to install an antenna), but also to support their research on radio transmission, routing methods, software or encryption. As many local authorities have found, supporting community networks is a sound policy option. As EU lawmakers move forward on the WiFi4EU initiative, we would like to remind you that we have pioneered various models for the provision of free public access points. We believe that public money invested in this initiative should primarily go to groups pursuing a bottom-up logic, seeding local groups that can foster the empowerment and cohesion of local communities, nurture competition, and meet the same policy-objectives at a fraction of the cost that would be charged by mainstream telecom operators.

8. Opening the policy-making process to Community Networks

Although we have often partnered with municipalities and local public authorities, we ask that national and European regulators pay more attention to our activities when drafting regulation. Community networks have both the expertise and legitimacy to take an integral part in technical and legal debates over broadband policy in which traditional, commercial ISPs are over-represented. Community networks can bring an informed view to these debates, allowing for a policy-making process more attuned to the public interest.

We thank you for your attention and very much look forward to engaging with you on these

important issues,

First signatories

(EU-based community networks)

020wireless (Netherlands)

AIL-Network (France)

Alsace Réseau Neutre (France)

Aquilenet (France)

Association Ribaguifi - Eresué 2.0 (Spain)

Asoc. SevillaGuifi (Spain)

Common Net (Italy)

FAImaison (France)

FDN (France)

FFDN (France)

Franciliens.net (France)

Freifunk.net (Germany)

Fundació guifi.net (Spain)

Funkfeuer (Austria)

Grenode (France)

Grifon (France)

Ilico (France)

Illyse (France)
Iloth (France)
Neutrinet (Belgium)
Ninux.org (Italy)
Open Network in Croatia (Croatia)
Progetto Neco (Italy)
Progetto Wireco Ciminna (Italy)
Rézine (France)
Sarantaporo.gr NPO (Greece)
SCANI (France)
Tetaneutral.net (France)
Tourraine Data Network (France)
Wireless België (Belgium)
Wireless Leiden (Netherlands)
WirelessPT.net (Portugal)
Wlan slovenija (Slovenia)

Supporting organizations

(signing in support of the general approach and/or specific proposals put forward in the letter)

ApTI (Romania)
ARTICLE 19 (UK)
Bits of Freedom (Netherlands)
BlueLink.net - Civic Action Network (Bulgaria)
Brazilian Association of Digital Radio (Brazil)
Chaos Computer Club (Germany)
Chaos Computer Club Lëtzebuerg (Luxemburg)
Colnodo (Colombia)
Common Ground (Germany)
Commons Network (EU)
Dugnadsnett (Norway)
EDRi (EU)
EFF (US)
Electronic Frontier Norway (Norway)
epicenter.works (Austria)
Free Knowledge Institute (Netherlands)
Free Software Foundation Europe (EU)
Frënn vun der Ënn (Luxemburg)
GreenNet (UK)
hackAIR (EU)
Initiative für Netzfreiheit (Austria)
Instituto Bem Estar Brasi (Brazil)

Instituto Nupef (Brazil)
La Quadrature du Net (France)
MAZI (EU)
netCommons (EU)
netHood (Switzerland)
Network Bogotá (Colombia)
NEXTLEAP (EU)
NURPA (Belgium)
Nuvem (Brazil)
One World Platform (Bosnia Herzegovina)
Open Rights Group (UK)
Open Technologies Alliance- GFOSS (Greece)
P2P Foundation (Netherlands)
P2P Lab (Greece)
PIE News Project (EU)
Project Arig (Israel)
Rhizomatica (Mexico)
Renewable Freedom Foundation (Germany)
VECAM (France)
Xnet (Spain)
Zenzeleni Networks (South Africa)

B. Notes on the European Electronic Communications Code (May 2017)

1. Enhancing data protection

Articles 40, 93

Data protection, a core value of Community Networks (CNs)

In Europe, Community Networks (CNs) are a growing movement of organizations that operate local communication infrastructures, sometimes federated at the regional or national levels. These networks, most of which also provide access to the global Internet, are operated as a commons. That is, rather than being driven by for-profit motives, their key focus is on providing connectivity while striving for democratic governance, social inclusion, education, and human rights with respect to communication technologies.

As such, one of their core values is to protect the privacy of their users and not to process their personal data for business purpose or any other purpose not necessary for the provision of their services.

Obstacles faced by community networks

Governments of numerous Member States intend to abolish users' freedom to encrypt their communications. Furthermore, they have lately adopted several laws strengthening the powers of intelligence services to intercept communications and to monitor networks for purposes such as protecting national economical health or the detection of minor crimes or simple misconducts.

In the same spirit, and in breach of the Charter of Fundamental Rights (as clearly interpreted last winter by the Court of Justice of the European Union in its Tele2 case), many Member States are refusing to revoke or review their national laws which require telecommunication operators to retain traffic data of all their subscribers.

All of these issues directly and drastically impact CNs' activities, by preventing them from implementing policies that fulfill one of their core social values.

Amendments

IMCO

Amendments **377 and 378 should be adopted** as they would make end-to-end encryption mandatory for interpersonal communication service providers (such as mail and chat).

Amendment **530 should be adopted** as it would explicitly force Member States to comply with the Tele2 case of the European Court of Justice.

ITRE

Amendments **565, 566, 567 and 568 should be adopted** as they would make end-to-end encryption mandatory for providers of interpersonal communication services.

Amendment **1099 should be adopted** as it would provide a framework anchored in fundamental rights for the interception of communications by competent national authorities.

2. Fostering the development of wireless community networks

Articles 2, 55, 95

Freifunk, a wireless community network

Freifunk is a German community network whose members are single-handedly installing and maintaining free networks, using their own Freifunk firmware on off-the-shelf wireless (WiFi) devices and routers. Every member of the network configures his or her router to relay the traffic of other participants to the Freifunk

network. In return, he or she can also transmit data, such as text, music and movies through the network or use services setup by participants. Many members also share their Internet access and allow others to use it to access the World Wide Web and other internet services.

In 2013, there were 40.000 Freifunk relays all over Germany and neighbouring countries and, given the coverage achieved in Berlin, more than 350,000 people can have access to the network. Since the provision of free Internet for all is part of Freifunk core identity, its network is essential for many communities, such as underprivileged individuals.

Finally, based on user-driven networks, services and usages, Freifunk depends on perpetual innovation through, for instance, the development of new communication protocols that any other operators or companies may freely used to provide innovative services all over the EU.

Obstacles faced by Freifunk

Several national laws seek to prevent the sharing of Internet connections amongst several users by making people liable for all the communications made through their Wi-Fi connection. In 2017, two German courts have found individuals sharing their Wi-Fi connection liable for copyright infringements committed by other users. They were found liable because, despite having been warned by rights-holders about such infringements, they did not take measures to stop those infringements and to prevent new ones.

Such liability is a major threat for Freifunk members and a clear distortion of competition since 'traditional' Internet access providers cannot be liable for infringements committed by their users, even if they are aware of them, as provided by article 12 of Directive 2000/31/EC ('Directive on electronic commerce').

Furthermore, while they do not benefit from the same liability regime as professional providers, CNs are subject to the same strict obligations. Some of these obligations are clearly unjustified and disproportionate where imposed on individuals.

Finally, two practical obstacles may prevent individuals from sharing their Internet connection. Firstly, router manufacturers may prevent users from loading into their devices customized software necessary for maintaining free and open wireless networks (such as those developed by Freifunk). Users' ability to use Free Software in order to regain control over their devices is also threatened by ambiguous language in the Directive 2014/53 on radio equipment. Secondly, Internet access contracts may directly forbid subscribers to share their connections with others, or charge them for doing so.

Amendments

Article 55 of the proposed Code intends to foster the development of wireless community networks but fails to address the obstacles underlined above.

IMCO

Amendment **68 should be rejected** as it would hinder the development of community networks by making the community liable for the actions carried-out by end-users.

Amendments **408 and 409 should be adopted** as they would explicitly extend the protective liability regime of Internet access providers to individuals sharing their Wi-Fi connection.

Amendment **411 should be adopted** as it would allow members of Community Networks to install Free Software (software that can be freely used, studied, modified and shared as such) onto their wireless devices, which is a prerequisite and standard practice in wireless networks.

Amendment **566 should be rejected** as it would have the opposite effect.

ITRE

Amendments **298, 316 and 333 should be adopted** as they would exclude individuals sharing their Wi-Fi connection from the scope of obligations imposed on professional providers, thereby fostering the development of wireless community networks.

Amendments **702, 703 and 706 should be adopted** as they would explicitly extend the protective liability regime of Internet access providers to individuals sharing their Wi-Fi connection.

Amendments **708 and 710 should be rejected** as they would remove the provisions giving end-users the rights to access wireless networks of their choice and to share their own access with other uses.

Amendments **712 and 713 should be adopted** as they would not allow Internet access provider to charge users in case they want to share their Wi-Fi connection.

3. Promoting a shared and unlicenced spectrum

Articles 4, 18, 45, 46, 49

Tetaneutral, a not-for-profit Internet service provider

Tetaneutral is a not-for-profit French Internet service provider that provides connectivity for everyone, including digital exclusion areas. While fibre optic networks are costly, wireless networks are a flexible and affordable way to provide broadband wireless network to all citizens.

Through WiFi unlicensed spectrum, Tetaneutral is able to deliver symmetrical very high capacity network (up to 30 megabytes) in all areas, including where fiber is not deployed. It is a key enabler that supports the digital uptake in rural areas and spreads digital literacy. It involves users in the deployment of the network and thus empowers citizens in both urban and rural zones. To that extent, bringing connectivity to everyone crucially depends on wireless unlicenced spectrum.

Obstacles faced by Tetaneutral

The lack of shared (through flexible authorisation schemes) and unlicenced spectrum is an obstacle for deploying community networks. Deployment of 4G and 5G should not be an excuse to reduce or even slow the release of shared and unlicenced spectrum (supported by the European Commission), which embodies the core principle of general authorisation mechanism enshrined since 2002 in the current telecoms package. To prevent the often exagerrated risk of congestion, technical harmonisation within the EU should ensure the coexistence of both spectrum licensed through individual rights and of free spectrum.

Besides, the duration of rights to use radio spectrum shall be limited and subject to regular review in order to assess the efficiency of the use of spectrum in light of technological and market evolution, and ensure that spectrum policy continues to serve the public interest. Authorisations should be withdrawn if necessary and National Regulatory Authorities (NRAs) have appropriate powers to carry out such assessments.

Amendments

ITRE

Amendment **393 should be rejected** as it aims at reducing the obligations of the Member States to develop the shared and unlicenced spectrum.

Amendment **420 should be rejected** as it aims at limiting the possibilities for Member States to add amendments to spectrum usage plan.

Amendment **603 should be adopted** as a solution for increasing the access to shared and unlicenced spectrum.

Amendments **636 and 645 should be rejected** as they would increase the number of cases where authorisations to use radio spectrum are needed, which is not an efficient way to foster innovation but would on the contrary add constraints.

Amendments **670 and 674 should be adopted** as they would enable regular reviews of the authorisations to use radio spectrum.

4. Creating the appropriate conditions for small Internet service providers

Articles 59, 70, 71, 72

French Data Network, a not-for-profit Internet service provider

French Data Network (FDN) is the oldest French Internet service provider (ISP) still operating. It exists since 1992.

FDN provides hundreds of subscribers with services that major French ISPs do not offer: it systematically provides static IP addresses (a critical condition for self-hosting), refrains from monitoring the behaviour of its

users for any commercial purpose and guarantees the neutrality of its network far beyond what is imposed by the Open Internet Regulation. FDN is a non-profit entity: it provides access to the Internet against payment, but its revenues are entirely dedicated to the development of its network and services. Its governance is open to anyone.

Obstacles faced by FDN

As most landine ISPs, FDN has not enough funding to deploy its own cables. It has to rent access to the wired network of big operators in order to provide users with its enhanced services. It may rent two kinds of access: passive and active.

Passive access means that a provider actually rents physical cables, installs its own equipment on the network and manages every technical aspect of the access provided to users. It is usually expensive since ISPs have to rent space in each local infrastructure (thousands of euros per month for each) in order to install their equipment. Thus, passive access is more suited for providing Internet access to many users in the same area or to companies with very specific needs.

Active (also called "bitstream") access means to simply use part of a network already managed by another operator. It does not require to install equipment nor to rent space. It is much cheaper and adapted for providing Internet access to fewer users in each location. It does not give as much control as passive access but still allows ISPs such as FDN to provide the services their members and subscribers are looking for.

Regarding ADSL lines, operators are obliged to grant passive and active access to ISPs requesting so. Therefore, there are now thousands of ISPs in France that provide customized and enhanced services to individuals or SMEs through the ADSL infrastructure of a few big operators.

However, this situation is limited to ADSL: operators are free not to grant access to their fibre-optic lines at all. Since FDN and most ISPs are not in a position to deploy their own lines (nor participate in the deployment of fibre lines), they simply cannot and do not offer any fibre access to end-users.

This impedes competition drastically, limits the diversity and the quality of services provided to SMEs and individuals and is destroying the pre-existent economic fabric of small ISPs used to work with companies. Now, these companies may only rely on the four big French ISPs which are unable to provide them with services specifically fitting their needs.

Amendments

Article **59** (symmetric regulation), **70** (access to civil engineering), **71** (general access including active) of the proposed Code intend to create obligations to grant access (active and passive) at relevant cost (article **72**) but fails to address efficiently the obstacles underlined above.

ITRE

The following amendments **should be adopted** as they would strengthen operators' obligations to grant access and NRAs' power to order them to do so: **737, 738, 743, 745, 748-752, 757, 905, 907, 908, 909, 912, 939, 940, 948, 953, 954, 959, 965-970, 974, 976, 977, 979, 980**.

The following amendments **should be rejected** as they would have the opposite effect: **735, 746, 747, 889, 893, 894-900, 906, 913, 918, 924-926, 932-937, 943, 971, 984**.

Amendments **917 and 923 should be adopted** as they would specifically ensure that active access is not relegated to a minor role compared to passive access.

The following amendments **should be rejected** as they would have the opposite effects: **739, 740, 741, 742, 880, 930, 931**.

5. Enhancing competition and addressing oligopolistic situations

Articles 61, 65, 71, 72, 74, 77

Federation FDN, a federation of not-for-profit ISPs

The Federation FDN gathers 26 not-for-profit Internet service providers in France and Belgium. Some rely on bitstream access provided by incumbent players. Others create their own fiber-optic or wireless networks in

both urban and rural settings, in many cases bringing connectibity to ”white zones”.

Obstacles faced by Federation FDN

In France, more than 1000 operators are on the ADSL market, offering connection to both individuals or companies. To some extent, this allows competition between a variety of actors, and can ensure the possibility for users to choose between several offers. While ensuring competition at a retail level, such providers also stimulate competition on wholesale markets.

But the situation on the fiber-optic local loop is very worrying: only four operators are developing this kind of infrastructures in France, which cannot be considered as the same competition conditions as for the ADSL market. Furthermore, operators are often alone in a specific area, which leads to a monopolistic situation from the end-users point of view, as they cannot choose between several operators. The root cause is that there is currently no bitstream offers allowing smaller operators or Community Networks (CNs) to use the infrastructure of the dominant players to provide their services to end-users. This situation brings national markets back to the early days of European regulation where single dominance is the rule but with several players theoretically active. Deprived of the proper regulatory incentive to remedy this situation, NRAs are not taking the necessary steps to ensure competition.

To solve these issues, the definition of “significant market power” (SMP) should be broadened, so as to include all operators having a position equivalent to dominance, including through a commercial or co-investment agreement, and be subject to an asymmetric regulation. This would ensure competition in the face of oligopolistic situations.

Also, smaller operators or Community Networks need more flexibility and less administrative burden, such as analysed by the Federation FDN within its answer to the French consultation on the land-line market. Community networks (CN) can be a solution for non competitive markets in bringing connectivity over the territory, such as observed in the scandinavian countries.

Regulatory holidays (art 74-77), limitations to symmetrical regulation (art 59.2) and amendments going further in this direction will inevitably lead to duopolistic and non-competitive situations Thanks to access regulation, this is precisley what we have so far avoided in Europe. As the political economy of networks further concentrates, if CN are not supported (notably through bitstream access) we will step back from this situation.

Amendments

IMCO

Amendment **436 should be adopted** as it deletes the provision on article 72 that would reduce the NRA regulation powers depending on the investments. The role of NRAs is not only to secure the investments of operators but to ensure a harmonious development of faster and affordable networks across territories.

Amendment **440 should be rejected** as it aims to put the burden of proof on NRAs when they aim at regulating costs and tariffs. Due to classical asymmetry of information issues, NRAs cannot face such a burden and would deprive them of the capacity to regulate tariffs even when reasonable and not cost oriented.

Amendment **441 should be rejected** as it aims to remove any transparency related to cost accounting system. Again, transparency is crucial when related to cost-regulation. Cross susbidies issues could not be properly addressed under such circumstances.

Amendment **442 should be adopted** as it gives back to NRAs the capacity to appreciate how much New Network Elements shall be subject to regulation. On the contrary, automatic and potentially temporary deregulation would greatly disturb the market and impede competition.

Amendment **444 should be rejected** as it worsens the European Commission’s proposals by letting monopolistic players unregulated.

Amendment **448 should be rejected** as it aims to put at the same regulatory level any kind of agreements among market players, and would lead without any control mechanism to raise barriers to market entry for any operators that are not part of such agreements.

Amendment **449 should be adopted** as it clarifies that co-investment agreement must have been concluded in order to be taken into account by NRAs. Assessing a mere co-investment offer is not enough to allow NRA to play its role and ensure a proper competitive dynamic.

ITRE

Amendments **793, 794, 800 and 818 should be adopted** as they would also enhance the definition of SMP and remove provisions that weaken the SMP regime.

Amendment **971 should be rejected** as it aims at securing the network investments by operators whereas the role of NRAs is to ensure a harmonious development in the territories and give to all equal access to the market and services.

Amendment **973 should be rejected** as it would worsen the oligopolisation of fiber-optic networks and thus worsen the distortion of competition. This amendment gives operators more possibilities to exclude competitors either by increasing prices or discriminating the undertakings.

Amendment **1045 should be adopted** as it removes article 77 that imposes less obligations to vertically separate undertakings. As it stands, this article would leave monopolistic players unregulated.

Amendment **1130 should be adopted** as it would enable local ISPs to participate in the investments and thus enhance connectivity and competition at the local level.

C. EU Parliament Workshop of October 17th 2017 on Community Networking

C.1. Programme

Programme of the EU Parliament Workshop
on Community Networks and Telecom Regulation

17 October 2017 - 9h00-12h00
Room 5G315
European Parliament - Bât. Altiero Spinelli
60, rue Wiertz - B-1047 - Bruxelles

Community Networks (CNs) are a growing movement of organizations that operate local communication infrastructures, most of which give free or affordable access to the global Internet. There are more than 150 of these organizations across the EU, currently providing broadband connectivity to tens of thousands of EU residents. These networks are operated as a commons: Rather than being driven by for-profit motives, their key focus is on providing access to telecommunications while striving for democratic governance, social inclusion, education, and human rights with respect to digital technologies.

But despite their stunning achievements, policy-makers at the national and European levels have so far mostly neglected their existence and specific regulatory needs. Worse, regulation is often hampering these initiatives, and the draft of the "European Electronic Communications Code" (EECC) risks worsening the situation. This workshop, co-sponsored by MEPs Miapetra Kumpula-Natri (S&D) and Julia Reda (Greens/EFA), gathered CN practitioners, policy-makers and researchers to discuss the way in which EU policy can help European CNs thrive.

9h00-9h15 : Introductory remarks by Miapetra Kumpula-Natri (MEP, S&D) and Renato Lo Cigno (netCommons)

9h15-10h15 : Assessing the work of Community Networks in light of EU broadband policy

Chair: Mélanie Dulong de Rosnay (CNRS)

- Rural areas - Leandro Navarro (UPC)
- Social inclusion - Jurgen Neumann (Freifunk)
- Education on ICT & innovation - Leonardo Maccari (Ninux)

Discussant: Alexandre Polvora (European Commission, Joint Research Centre)

10h15-11h45: Overcoming regulatory hurdles for the telecom commons

Chair: Félix Tréguer (CNRS)

- EU broadband policy and CNs - Maria Michalis (University of Westminster)
- Legal liability - Arthur Messaud (LQDN)
- Landline networks and the commons - Ramon Roca (Guifi)
- Amending the EU Code of Telecommunications - Benjamin Bayart (FFDN)

Discussant: José Bové (MEP, Greens/EFA)

11h45-12h00: Closing remarks by Julia Reda (MEP, Greens/EFA) and David Hammerstein (Commons Network)

C.2. Draft Transcript

Intros

Miapetra Kumpula-Natri, MEP, S&D

- We should get Europe toward the modern type of connectivity, for this we need a functioning market, not sure it is going to the right direction
- very important that local communities can be part of the global Internet
- liberties threatened by business and companies
- Code, foster competition and investments for more connectivity
- unfortunately, in roaming report, telecom companies, strong power, threaten that will not invest if they don't get rid of the regulation, very bad idea
- high prices, less selection, differentiation, technically as well
- no monopolies, connectivity for everyone and every place
- secured the rule for dark fiber,
- co-investment is one of the key issues
- from the social perspective, privacy, social integration; not only high speed with exclusion
- WiFi4EU ... more people to have access

Renato Lo Cigno, UniTN, netCommons

- CNs as alternatives not replacements, the netCommons project
- what is a community network: wireless and wired
- owned and operated by the community itself, the notion of commons, shared economy
- Guifi, perhaps the largest CN, running as a business
- The other extreme, ninux.org, original goal an alternative Internet (no Internet access), a parallel communication network
- netCommons: academic project, no industry
- communication, fundamental need and right
- infrastructure goes up very close to services (e.g., cloud)
- CNs: bottom-up initiatives, very diverse
- do they have something in common? A global framework for CNs to become part of the "big" scenario
- alternatives to the Internet (successors of the Internet) or alternative Internets (parallel to core infrastructure)
- more democratic and accessible living place for everybody

Panel 1: Assessing the work of Community Networks in light of EU broadband policy

Leandro Navarro, UPC, netCommons

- being a citizen vs. being a consumer
- connectivity in place with lack of infrastructure
- large part of the population is not connected
- extracting value in exchange of service
- food: forced to go to well crafted restaurants that we cannot afford for every day, but we need also to be allowed to cook at home ... it should be possible
- we need also affordable devices commons

- critical resources, without Internet access you cannot live or make business in the country side
- WiFi4EU: very good idea, let's see how it develops
- market, but very assymetric one
- puzzled by the words: ultra, fast, mega, what does it mean?
- "centres of public life" ... how about rural areas? (few centres)
- "no interest" ... how is this defined?
- words that do not show, and would bring fairness in the game
- net neutrality
- monitoring and evaluation ... small kitchens cannot compete with big restaurants
- Self-provision
- B4RN, best connectivity in the UK by far
- Guifi.net: Fibre-from-the-Farm
- proven model
- in the worst case it is complementary to the other model
- if we want to connect everyone we need to have many models
- if we cannot cook at home, restaurants will not cover all our needs
- we can feed with access, extract value from them
- if you don't have the chance to provide and make sure the money do not leave the community, but go to companies, then we don't live in a democracy, we live in a farm and we are the livestock: free food in exchange of our (social) life.

Juergen Neumann, Freifunk

- The difference between a top-down vs. bottom-up approach
- goal of Freifunk to enable their own networks for local services and also access to the Internet
- it makes a difference between top-down vs. bottom-up
- public WiFi covers only areas of commercial or touristic areas
- people can empower themselves, cheap hardware, free software, and build their own Internet access
- -> Freifunk movie: started in 2002
- secondary liability issues
- the solution was tunneling, to take the responsibility from the users, threatened
- from then on, a massive increase of the freifunk nodes
- all over Germany, it is everywhere, cities, villages, rural areas
- there are dots all over
- example of mesh network in the neighbourhood
- local initiative shared between businesses and private people
- a top-down initiative cannot reach this density
- biggest problems in the past:
  - bad frequency, lack of bandwidth, bad latency because of many hops
  - lack of organization, loose community structure
  - legal and regulatory uncertainty
  - requiring passwords, what does it mean, why should someone be identified accessing the Internet?
  - no monitoring, QoS

  - unreliable private engagement of individuals
  - the 50000 nodes are those that are working

Leonardo Maccari, UniTN, netCommons

- Relevance
- passive (eyeballs) vs. active users
- CNs
- disseminate the Internet (education, advocacy)
- bottom-up and can reach people very difficult to reach otherwise
- educational efforts with important institutions (no technological)
- develop the Internet (they enlarge the Internet, e.g., at the edges)
- protocols and platforms, open source projects,
- Google summer of code
- developments do not stay in the community
- Librerouter, open free hardware router, optimized for unconnected regions (doing it for real)
- Broadband innovation award
- Story: OpenWISP, open source network management system, actually used to manage Public WiFi
- coming out of the experience of CNs
- netCommons helps to do more interesting visualizations
- interact with Internet (from users to citizens, have a voice on how it works)
- Internet as services
- what is under the hood?
- the physical component shapes the behaviour of the applications
- CNs help to unveil this relationship
- people that understand the importance of design can demand a better design

Alexandre Polvora, Joint Research Center (JRC) of the European Commission

- Independent advice for EC
- Urban policy lab, services, co-creation,
- Often the discussion falls into the technical side
- from the policy perspective, we need to bring some social aspects, help to push forward the discussion
- breaking the spectrum bubble, big question for CNs
- what's the place of governance models, if given a more central role?
- are they really developing bottom-up governance models?
- upscaling in volunteers
- how are volunteers are supported to do it in a more autonomous way?
- social inclusion and diversity?
- provocation: the idea of neutrality comes quite often, small ISPs go to no platform strategy for hate groups, what is the position of CNs?
- openness, co-creation, public engagement
- there is a space for this, through policy
- policy making, a more readable and understandable
- evidence, more than technological

- pushing the policy agenda, diversify the evidence

Question by David Hammerstein, Commons Network

- we are just creating technological opportunities, waiting to trickle down to society
- common infrastructures and the common good?
- privacy, environment, climate, commodification
- Leandro, if guifi.net was in charge would the central government could so easily intervene?
- Similar concrete questions
- I hate to see netCommons as just a technological shift to decentralization

Juergen Neumann, Freifunk

- about social inclusion
- bottom-up approach is driven by need
- do we empower them to be able to fix something that is not fixed by other entities in society
- everyone who has a background in CNs knows the need
- intrinsic motivation of people to change something in their environment
- how easy we make it?
- yes technically, it is about technology, need to educate them
- the technology as easily applicable as possible
- regulatory uncertainty can be detrimental, is this legal or not? afraid and not choose the easy way
- if there is safety there is a dramatic growth
- the case of refugee camps, Freifunk activities connecting them to the Internet, key need for them
- secondary liability was an important issue for the ”hosts”
- we were told that areas of market failure would be served by 3G, 4G, 5G, serving everyone, everywhere
- we can learn from history that this does not happen and
- surprised how everyone can repeat this again and again
- what is the alternative? we have to make it easy for people to help themselves
- commons, shared infrastructure, shared responsibility, shared costs
- very important, needs more education and more roll out to the public

Leonardo Maccari, UniTN, netCommons:

- A community network is not a network connecting a community but a community building a network

Panel 2: Overcoming regulatory hurdles for the telecom commons

Maria Michalis, University of Westminster, netCommons

- about regulation, setting the context
- two phases:
  - introduce competition, market liberalization, main policy aim, improve efficiency, investment was expected from private entities
  - the market failed to deliver, economic growth, productivity -> broadband Internet
- updated belief: some sort of public intervention is necessary and appropriate, promote and facilitate innovation
- priority is not competition, but innovation (means broadband Internet)
- give the right incentives to innovate (to invest in broadband Internet)

- allowing monopolistic/oligopolistic structures would be OK if they can deliver innovation
- ETNO arguments: no price regulation, no control, regulation holidays, market consolidation, bigger is better
- "Why is it necessary that 2 million Slovenians have more operators than 2 billions Chinese"
- Municipal networks: from the industry perspective, they are seen as distorting competition
- Community networks: recognized, but the problem is the narrow definition (funding coming from citizens), but they are much more than that, not only about funding they are seen as "gap filling", where there are no commercial players, "white areas", commercially unattractive, minor role.
- question: Are CNs beyond gap filling? Yes, principles, values, they can respect fundamental rights and promote social cohesion.
- who funds them? (public funding could be considered "state aid")
- public/community partnerships? (observe state aid rules)
- private partners more likely to be accepted (what happens to the "values" of CNs?)
- Summary of reasons: open structures, better privacy, autonomy, control, experimentation, knowledge transfer, non-economic benefits (cohesion)

Arthur Messaud, LQDN

- Simple question: How and when CNs can be liable for the content shared by its users?
- Mere conduit principle: protects ISPs
- when applied to non-profits it may not work as expected initially
- main issue will be a law enforcement issue
- how it works for commercial ISPs: they know their customers, store their identity, IP address, etc; since the judge can identify users no reason to put pressure on providers
- for non-profit providers (such as CNs): they do not want to identify nor contract the users; authorities are not happy and try to find solutions for the mere conduit to "adapt" for such situations
- The MacFadden case:
  - SONY attempted to stop McFadden to offer access through his relay
  - at first he was not found liable for sharing the content but
  - a national judge should pressure McFadden to take a measure against such cases
  - proposal was to use password to identify user
  - This solution is in contradiction with values of CNs, complex structure to deal with that
- A new case: access + TOR node exit. As in McFadden, provider was asked to place a password capable to identify users
- in this case, provider was made liable since didn't take a measure to prevent it (not compatible with McFadden case).
- another major Tele2 case: business access provider, you cannot be required retaining of traffic data: contradiction

Felix Treguer, CNRS, netCommons: identification is also part of the WiFi4EU initiative (not sure how it will be implemented)

Ramon Roca, Guifi

- Guifi non political, partisan, non governmental, we represent citizens
- freedom of speech, net neutrality in our DNA, the organization cooperating is OMNIUM
- Jordi is an independentist, this is his crime

- I was giving you an example for fighting regulations and laws with civil protest with no violence
- I can agree or not with his ideology, but what I cannot understand is Jordi being in jail for defending that
- If we want Internet everywhere with same cost (rural, urban) it is not an utopia
- fiber is very powerful, it is possible, we can do it
- we don't want digital divide, market failure, we need to solve this
- if we take a step back,
  - sharing infrastructure is a must, especially in rural areas, fiber is very cheap, we cannot expect having several fibers to have several providers (like in cities)
  - we cannot be naive in terms of economics (it is of interest to block competition, there are many ways), two techniques: overbuilding (replicating infastructure using external funding) and speculation
- How to solve that: regulation is not neutral, CNs are not legal, there is a need for a regulation, it will not be neutral if it does not recognize that network infrastructure can be a public good.
- Difference between extractive and inclusive economy. This should be recognized by regulation at all levels.
- Private vs. Common good should be different in terms of taxes, etc. (not positive discrimination), at least equal opportunities,
- commons perspective should be recognized as good and different
- since the infrastructure needs to be shared, the best way to do it is as a common good

Benjamin Bayart, FFDN

- FDN is the oldest Internet access provider in France, 1992
- before opening the market, there were 15, afterwards they were 5 (after the "opening")
- non-profit organization, volunteer based, no employees, people building their own access
- changed from organization to federation of providers each being a non-profit
- great variety
- some rural networks with WiFi, some operate in urban areas, but in this case there are problems.
- If you see Internet as infrastructure and consider NetFlix the service and Orange the infrastructure,
- the infrastructure is the fiber, etc. and you can provide different types of Internet access
- when providing access shouldn't provide content at the same time (net neutrality)
- 4G considered a viable alternative to broadband (not actually in terms of net neutrality)
- we invest a lot in work not in money, work on the infrastructure,
- working with national regulatory authority, invest to explain how we work
- the problem with the Telecom code, a tit-tat, we are the collateral damage
- when there is a public network paid by the city, it is mandatory to be available for all operators (non-discriminatory condition, for all the price is 5M EUR)
- after a lot of effort we solved some problems:
- the fee (in France the price was 20K, non-discriminatory?, for FDN this was a full year of budget)
- access to the infrastructure (we need the NRA to be able to act, to open the market when needed, the Code prevents this), regulatory holidays mean the big guys will scratch the small ones (us), need to prevent them to destroy us
- Investment is not the question, the fiber is an asset that will not depreciate, google may fail, but not the one operating the fiber,

- they may pretend the need of regulation to invest but in reality it cannot fail, and for this it needs to be regulated.
- in every apartment there is one cable, I might be able to choose from several providers, but in reality there is a single access which is a monopoly. If I cannot choose a non-profit ISP, if I cannot build for me and my friends, then the market is not open.
- The question is not if it is open between Orange and Vodafone, the question is if citizens can build their own operators, that will cover their place.
- The problem is real in rural areas, can I build infrastructure when the market is failing? Today, we cannot build fiber where is needed. We can do it technically but there are regulatory problems. If we do it it will be illegal and anonymous. It is not allowed.
- For urban people, are they only consumers or are citizens of the Internet?
- It is difficult to work with EU institutions, we are volunteers, it is difficult to take holidays to talk with EU institutions, too complex, the Code tries to lessen the power of NRA to act when we needed. In Beligium regulation failed, in France a little better, at least a chance, if there is no regulation we will have in Europe only NetFlix customers.

Discussant: José Bové, MEP, Greens/EFA

- The initiatives spread themselves even if there are problems at the European, national, or regional problems with authorities
- The people can be stronger than the economic or political authorities
- We see it in Spain, in France, at the EU level
- What is clear, and I am happy, that everybody recognizes that those that have the pipelines control everything
- This demonstration was very important
- We know it since years when Rockfeller built his empire not taking out the petrol but moving it from one place to another
- What can the communities do?
- A small experience: I live in a very local area, we will never going to have anything, we were given poor access w/ WiMax,
- always failing, cost a lot of money to regional authorities, gangsters put this up,
- Then told us we will have the pipeline (not true)
- we will give you monies to buy satellite dishes, it didn't work, worse than the WiMax,
- we met people that have built their own way, as we are in a special area, used to do things by ourselves, not always legally, Alsaces, have fought against the French army,
- If we need it, we have to build it, used radio to connect to the fiber in the city
- local authorities say it is great, can you show us how it works? we would like to do it
- Orange says the same, they don't know how to do it, but individuals are not known, a collective,
- building inside our work a common way to use the Internet, self-control, this could be changed by the people,
- this does not have to be too big, you are only communicating by Internet, the best communication is when you can see yourselves, when we are 50-100-150 is the maximum you can discuss how to build, if more people make a different group, to be able to share directly, discuss eyes in the eyes, we have to spread Internet but don't forget the people, and the people discuss directly

DISCUSSION

Julia Reda, MEP, Greens/EFA

- Council or parliament?
- do you see a possibility for us to prevent this threat?
- is already a lost cause?

Benjamin Bayard, FFDN

- It seems to be a lost cause
- some points are interesting in the improvements by the parliament
- very far from what is needed
- monopoly is considered a powerful operator in a national market
- this is the wrong way.
- the powerful operator is from the customer point of view
- Because of the Code, National authority cannot force monopolistic operators to open their network
- the list of things that need to be proven are wrong
- they have to prove that large scale operators cannot come
- market analysis, how a new operator with only million customers can survive? If yes, the market is sane
- When we ask the price of new operators how much costs the first line, the first subscriber?
- DSL, 15K the cost of the first line
- what is the minimum size according
- the ability to host a web site is not considered
- an Internet access to watch Netflix is different than an access to host a web site, which is trivial and easy
- can I broadcast TV from my home? With fibre I should be able. Can I?
- Why CNN is allowed to broadcast in Europe and I cannot?
- Net Neutrality is defined like this in European text, but I cannot

Ramon Roca, guifi.net

- There is something easy
- operators should be forced to interchange the traffic, this is why Internet works
- what is happening, when I get the transit from Telefonice goes through Amsterdam, not locally, leads to more latency
- looking at this kind of tactics, noone looks into this, affects net neutrality
- Simple statement: Let's do the transit interchange local and with fair prices
- 1G costs less than 2K EUR. If I ask the same from Telefonica for local transit, 20KEUR a month. Noone cares, but these things could be addressed.

Benjamin Bayard, FFDN

- Several large companies own the undersea cables. 10-20 undersea cables. Each of these cables has thousands of fibers and each has different operators. Extremely open companies. Tata telecom, worldwide groups.
- We are customers at Tata telecoms, some working with Co-gent, except the old EU phone companies (we cannot work with them). International companies can have different size of customers, they are quite open. Orange does not want to work with us. A way to create a closed market.

Renato Lo Cigno, UniTN, netCommons

- Tier 1 operators do not care about final customers. Orange, Telecom Italia, are used to work with the final customers. They are in a posistion to be both a service provider for a CN and a competitor. Regulation should separate more properly who does what. This was analyzed since many years, vertical integration

Benjamin Bayard, FFDN

- Orange is one side targeting end-users and they are also in the wholesale market. They also work in the international transit market. Also as a submarine cable company. They are present in every market. They make choice and usually not regulated. Only the end-user market is regulated and poorly. Openness is wrongly defined, in a global market and not from an end-user point of view.

Agnès de Cornulier, LQDN

- The current version of the Code is not good but leaves room for NRA to regulate and take into account the CNs if they want to. Room for interpretation. The same for sharing unlicenced spectrum. They have to interpret the Code, and this can bring lots of problems. The Council will diminish the regulation possibilities. There is room to avoid something completely bad, but not toward something good.

Juergen Neumann, Freifunk

- for WiFi4EU. Whether to have a password or not. To make it short, it is useless. If it is shared no
- If the purpose is to identify, private persons should check IDs, in German is not allowed.
- Adds bureaucracy and complexity to the whole initiative, it does not make sense, and we should get rid of it.

David Hammerstein, Commons Network

- The visibility of your demands in the debate about the Code. I wish it was more visible. What would be needed?

Melanie Dulong, CNRS, netCommons

- In partnership with LQDN, guidelines on this specific issue

Arthur Messaud, LQDN

- We were there but it was not enough

David Hammerstein, Commons Network

- How to get out of the ghetto?

Benjamin Bayard, FFDN

- ETNO has a permanent office in Brussels. We do not and we cannot. There is no meaning. Some of these organizations serve villages with 200 inhabitants. It should a mission of the National authority to learn about it and represent the demands of FFDN and present something coherent to the Commission. It is the work of the Commission to learn what is happening.

David Hammerstein, Commons Network

- Ideally you are right

Maarit Palovirta, ISOC

We have a small office and tried to talk to some people about CNs. I have not found anywhere an estimation of the impact of CNs at the European scale. They understand that there is a gap and CNs can help but there is not any estimation in terms of numbers, percentages, etc.

Ramon Roca, guifi.net

Catalonia, there were counting various indicators, Internet adoption at the house, metropolitan areas ahead from rural areas. In Catalonia, in certain areas 15% of the share, those are data, it was released in 2013 and no released anymore, they changed the granularity to avoid this data,

Maarit Palovirta, ISOC

Broadband awards, 20 CNs, it would be useful to have a common idea of where are these projects, examples, help us to formulate and be more forceful

Panayotis Antoniadis, Nethood, netCommons

- I wanted to stress that CNs should not only seen as access networks, they offer access but they bring also opportunities for governance and the option to host local services and build communities to design and operate them.
- Building on the analogy with food mentioned by Leandro, CNs could be seen like organic farming, as an alternative to the "Algorithmically Modified Data" contained in big platforms

Benjamin Bayard, FFDN

- We create skills, skilled people, more engineers that know routing than Orange
- Not only in one office in one building, but spread everywhere
- where there is a CN there is a bunch of people to know how to operate a network, get access to knowledge
- not only human relationship but also distributing skills
- if you need to build a network after an earthquake you have to call someone from FFDN because they know how to do it

Leandro Navarro, UPC, netCommons

- The influence of the European Internet Forum and its membership in legislative processes
- Membership fees and members do not represent the interests of the citizens, they represent the players
- Not a single CN in associated members (free)
- Maybe CNs should be supported to participate

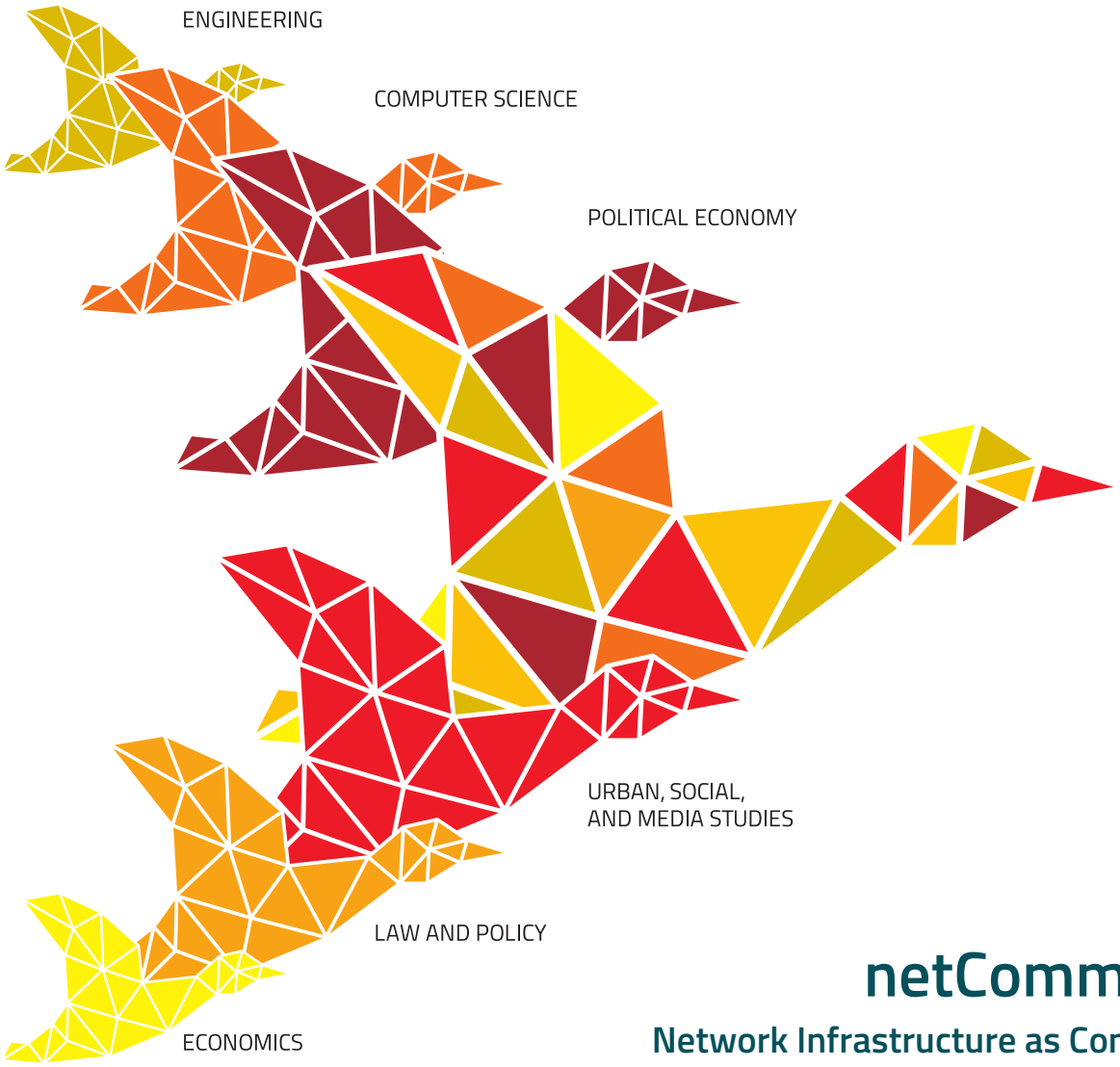
Closing remarks: Julia Reda, MEP

- Anyone that had experiences with Community Networks very clearly sees the value
- The access is the hook that makes them interested
- the education elements and the ability to have a network to manage by themselves, neutrality, privacy, can be built from this initial hook.
- Not every politician had a personal experience, in my case Freifunk was extremely important for the formation of my party, for a long time we didn't have offices, the possibility to meet and plan activities was in public spaces with Internet through Freifunk.
- The ability to access the Internet was the primary thing that got us interested.
- We need to try to build a reflex, whenever they talk about regulation about ISPs, that they have in the back of their mind that CNs exist and play an important role.
- The same with Facebook, Youtube, forget Wikipedia
- Similarly with Orange and Telefónica
- Create this reflex, other models exist, the laws need to allow them to exist
- Look at other similar areas have done. The library community creates links with politicians at the local level. You could check who are the MEPs in your region and invite them to visit your project locally.
- Organic farming is reasonably successful in influencing the policy process, might want to visit them and learn from their strategies

- Unfortunately we are late in the process, but regulation is being formed rules dis little hope that liability rules will get better, fighting not to get worse difficult position to start from e-commerce directive is preserved in principle is possible to provide a CNs without liability for the action of users we are far.
- my advice is to build personal links, focus on the narratives, explain to politicians based on examples they already know,
- access numbers at the aggregator level are important
- also important that they know that they exist and fulfil an important purpose, refugees
- different politicians, different needs
- concrete guidelines on the Code, compare the parliament ...
- where should we focus right now?
- prioritize the points that are most important to us
- European Internet Forum: on the paper a non-partizan association, but in reality led by industry
- We formed the digital agenda intergroup, from all political groups, invite you to explore if we can do something through this group
- an event on the Telecoms code with CNs on the table
- if it is only on CNs, those working on telecoms in a broader sense will not be there
- I want to help to get you into the discussion on the Telecom code in a broader sense
- A lot of work ahead us to make it part of the policy agenda
- The idea that CNs exist and are important will hopefully in a few years be in the back of the mind of every politician working on this

David Hammerstein

- Very relevant for us to connect all CNs with other areas of the commons
- next week, European Commons Assembly, media lab Prado
- will be a special workshop on Internet and data in municipalities
- very important to connect with urban planning, agriculture, energy cooperatives
- it is not part of the agenda, but it will become part of the agenda (as in Barcelona)
- self-fulfilling prophecy, no evidence on how many people are served,
- they are small because there is no regulatory support, because they are very small
- research level, P2PValue, netCommons, D-Cent, great work, get out of the sell, out of the ghetto,
- to become more mainstream, not stay in our little area
- very troubled times, urgency
- resilience, use how to use technology in times of catastrophy
- rebuilding ecological environmental things
- unfortunately, because of crisis, we will need these decentralized things
- no regulation for the commons in general
- in between private companies and the state, is a desert, legal gap, Ugo Matei: filling the gap of the legal commons
- otherwise we will be always seen as Martians



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