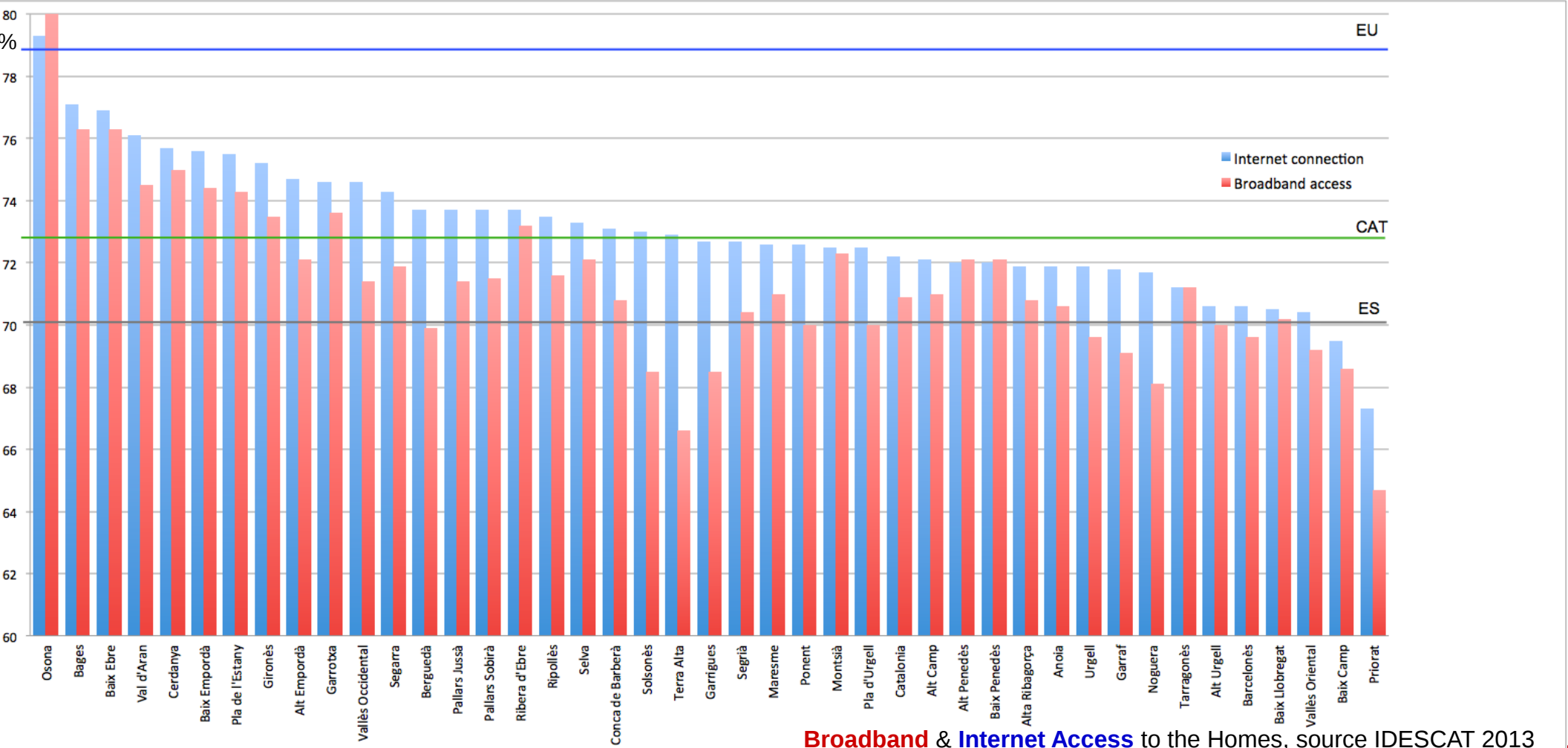


guifi•*net*

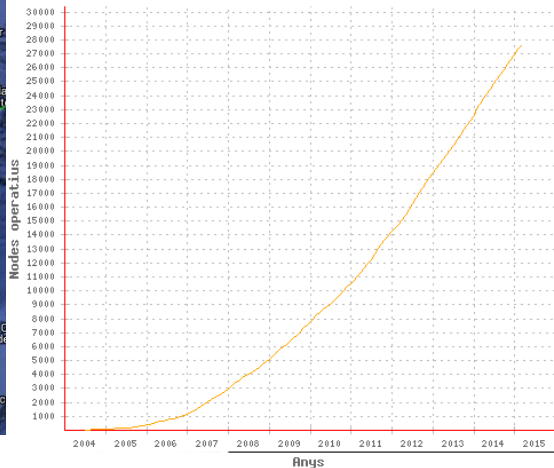
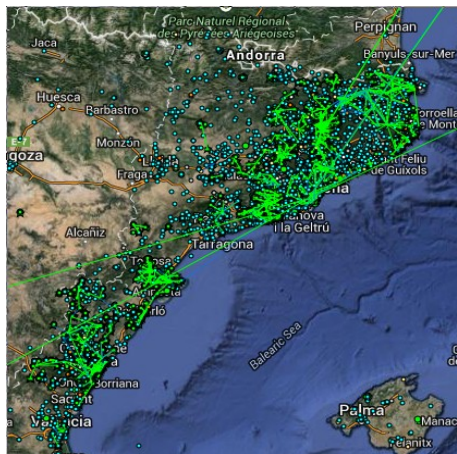
Building a
COLLABORATIVE ECONOMY
over
Networks as in **COMMONS**

CCommunity-Led Last-Mile Initiatives workshop
Brussels 16/11/2015
guifi.net Foundation
fundacio@guifi.net

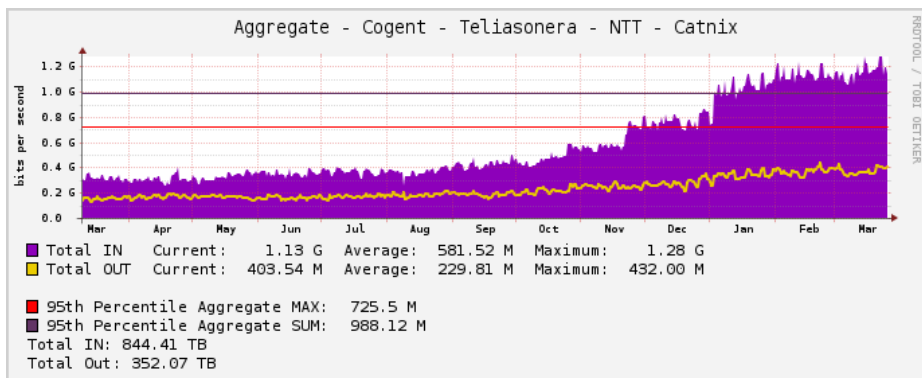
- What are we doing
- How public administrations can help



Broadband & Internet Access to the Homes, source IDESCAT 2013



- Not just about “we can”
 - But also “we do”
- In guifi.net, since 2004
- With a Foundation, since 2009
 - Non-profit, non-partisan, without conflicts of interest
- Scaling
 - Growing exponentially at triple digit every year
 - > 30k nodes
 - 18 Optical Fibre PoPs around Catalonia
 - CAPEX > 7M€
 - OPEX nearly 3M€ yearly turnover





- **User Access / Last Mile**

- Goal: internet for everyone
- Typically 90% of the total cost
- Starting wireless
- Later, extending to Fibre Optics: Aerial, conduits...

- **Territorial Transport**

- Needed for Last Mile deployments' interconnection
- Reusing existing public infrastructures: Roads, Railways, Water pipes, Power lines, etc.
- “de facto” a large distributed neutral IX
- Already present in many Catalan counties

- **Full Transit**

- To the Carrier House and to the Regional IX (CATNIX)
- 10GB/s ports
- Redundant internet uplink (independent carriers)
- Peering with almost all the ISPs present at the IX

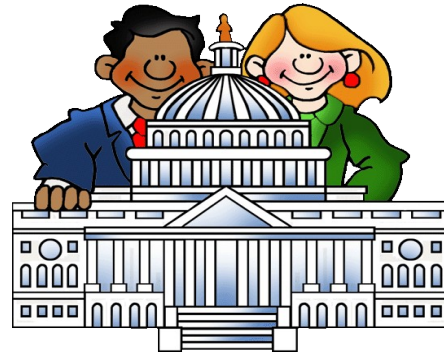
Layers of activity: Full cycle

guifi.net

A Collaborative Economy with ...

guifi.net

Network as a Commons



Smart Citizens (Volunteers)

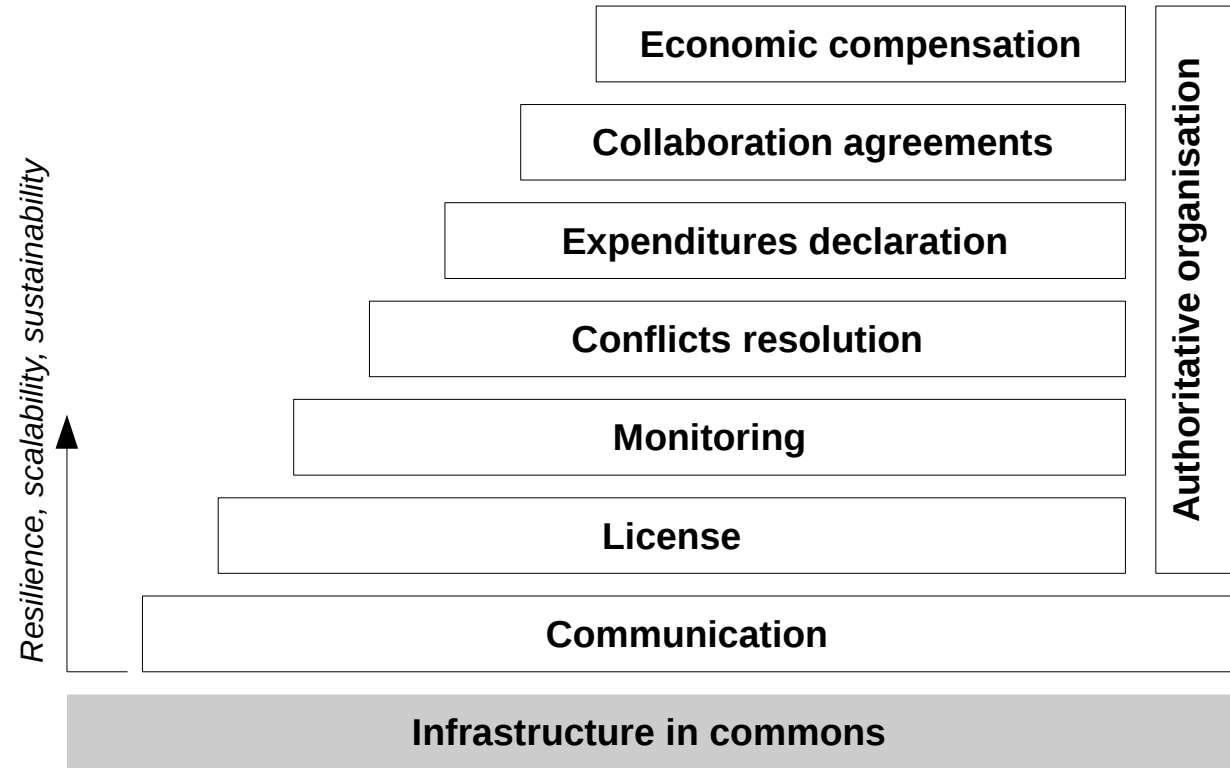
Smart Governments

Smart Enterprises

Participants

guifi.net

- Sustainable design
- Based on collaborative economy
 - E. Ostrom (2009 Nobel Prize in Economics) principles
- Based on free market, but
 - Non-speculative
 - Fair trade
- win-win ecosystem
 - Rises funding
 - enables economies of scale
- Accountable
- Implemented through
 - Written consensus rules (license)
 - Signed agreements



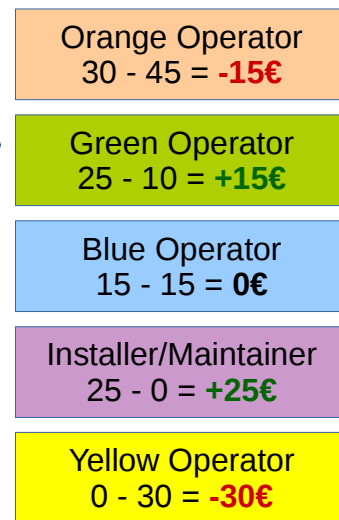
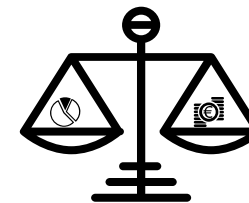
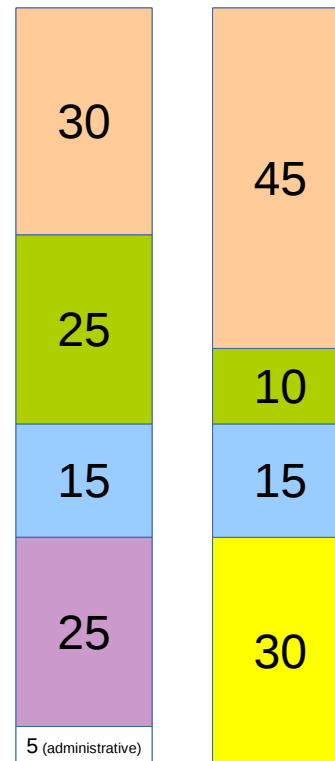
- Expenditures declaration
 - Public
 - Criteria
 - Information
- Economic compensation
 - Balances
 - Contributions
 - CAPEX
 - OPEX
 - Resources usage
 - Bandwidth, # of fibre connections, ...
 - Clear return of investment & fair business models

Totals mensuals per l'any 2014													
Supplier	gen	feb	mar	abr	mai	jun	jul	ago	set	oct	nov	des	Total
59855-Gurbtec Telecom	2,688.55	461.91	3,286.92	2,999.42	487.58	3,409.20	15,462.74	1,500.42	10,562.02	9,230.01	4,134.68	8,735.37	62,958.81
61891-Priona.net	-	-	-	853.05	-	-	-	-	2,699.54	-	275.68	39.53	3,867.80
61722-Gaufix.net - Internet a l'abast de tothom	2,643.26	3,875.98	5,592.41	1,590.64	396.80	641.30	1,535.03	1,671.10	3,386.53	3,211.91	3,801.38	2,747.77	31,094.11
31251-http://www.setup.cat	326.70	36.30	238.04	477.11	84.38	113.84	75.64	369.84	-	-	-	-	1,721.85
71369-Ramon Roca	-	-	-	-	-	-	1,200.00	720.00	-	480.00	-	-	2,400.00
													102,042.57

Expenses & Contributions (i.e.: = 100€)

Resource Usage (%)


Compensation Balance To **Compensate** or **Pay**




OSONA Menú Edita Esquema Seguirament **Previdions** Dejar

nt isp professional voluntariat


Filtre

GurbTec 

creat: 05/22/06/2013 - 17:22 — Gurb Tec - actualitzat: 12/09/2014 - 12:54pm

Average: 

Venir a més serveis: Venir a més > Zona (0) > Llogar-se > Biscaya > Osona > Vallès Oriental


 **AA**

Gurb-Tec som una empresa jove que la nostra activitat principal és la de proveïdors d'accés a Internet a través de la Xarxa Guifi.net. També serveis de telefonia fixe i telefonia mòbil. En el cas de la telefonia es fan portabilitats dels numeros actuals.


Donem accés tant a empreses com a particulars i les nostres tarifes comencen a partir de 10€/mes la més bàsica per a particulars i a partir d'aquí s'ajusten a les necessitats de servei que necessiti l'usuari.

PROFESSIONAL
 Certificacions: Proveïdor d'Internet mg (CMT), Compliment del Començament d'Activitat Econòmica, Compliment de bones pràctiques, Conveni de pacte basat en un PoP-IX, Conveni d'activitat econòmica, Capacitats: Proveïdor d'Internet (ISP), Telèfon (VoIP), Telèfon mòbil, Subministrament d'equips per ràdio/wifi, Instal·lador de wifi/sense fil, Subministrament de wifi/sense fil, Subministre d'equipament de Fibra Òptica, Instal·lador de Fibra Òptica, Manteniments de Fibra Òptica, Òptica, Contractació, Equipament de projectes, Gestió de projectes/Contractació.


Agrair un comentari nou Llegir més 485 lectures

delanIT 

creat: 03/18/11/2012 - 02:14 — Blackbird - actualitzat: 16/06/2014 - 12:02pm

Average: 

Venir a més serveis: Venir a més > Zona (0) > Iberian Peninsula

 **AA**

delanIT es una empresa con capacidad de implantación de redes guifi.net con tecnología wifi, fibra óptica o cable por toda la península.


Contacta con nosotros y realizaremos un estudio de las necesidades y del terreno para ofrecerte un presupuesto lo más adaptado al caso planteado.

PROFESSIONAL
 Certificacions: Proveïdor d'Internet mg (CMT), Treballs tècnics, Òptica, Compliment del Començament d'Activitat Econòmica, Compliment de bones pràctiques, Conveni d'activitat econòmica, Capacitats: Proveïdor d'Internet (ISP), Telèfon (VoIP), Telèfon mòbil, Subministrament d'equips per ràdio/wifi, Instal·lador de wifi/sense fil, Subministrament de wifi/sense fil, Subministre d'equipament de Fibra Òptica, Instal·lador de Fibra Òptica, Manteniments de Fibra Òptica.


Agrair un comentari nou Llegir més 2317 lectures 1 adjunt

Gaufix.net - Internet a l'abast de tothom

creat: 04/29/09/2013 - 11:55 — maq - actualitzat: 17/02/2014 - 9:59pm

Average: 

Venir a més serveis: Venir a més > Zona (0) > Osona > Caspardenos > Biscaya > Ripollès

 **AA**

Proveïdor d'accés a Internet i Telefonia fixe dins la xarxa Guifi.net.

Ofem accés a Internet simètric via radioenllaç i/o Fibra Òptica amb velocitats compreses entre 2Mbit i 1Gbit, amb diferents nivells de servei adaptables a les necessitats de cada usuari.

Per més informació: www.gaufix.net - info@gaufix.net - 900.678.010 - 668.886.495

PROFESSIONAL
 Certificacions: Proveïdor d'Internet mg (CMT), Riscos laborals, Actegonomia de responsabilitat civil, Conveni de pacte basat en un PoP-IX, Conveni d'activitat econòmica, Capacitats: Proveïdor d'Internet (ISP), Telèfon (VoIP), Subministrament d'equips per ràdio/wifi, Instal·lador de wifi/sense fil, Manteniments de wifi/sense fil, Subministre d'equipament de Fibra Òptica, Instal·lador de Fibra Òptica, Manteniments de Fibra Òptica.

- Qualifications & ratings
- Social exposure
- Service Level Agreements

PROFESSIONAL			
Certificacions professionals	Certificacions guifi.net	Serveis	Infraestructura de Xarxa
Proveïdor d'Internet registrat (CMT) 24/2/2010	Conveni de participant en un PoP-IX 01/02/2014	★★★★ Proveïdor d'Internet (ISP)	★★★★ Subministrament d'equips per ràdio/wifi
Riscos laborals 25/6/2013	Conveni d'activitat econòmica 01/02/2014	★★★★ Telèfon (VoIP)	★★★★ Instal·lador de wifi/sense fil
Assegurança de responsabilitat civil 01/02/2013			★★★★ Manteniments de wifi/sense fil
			★★★★ Subministre d'equipament de Fibra Òptica
			★★★★ Instal·lador de Fibra Òptica
			★★★★★ Manteniments de Fibra Òptica

Lessons Learned

- A crowdsourced network infrastructure held in commons is attainable
- Suitable for everybody: users, enterprises, and public administrations
- All E. Ostrom principles applies
- Strictly adhered to the basic principles:
 - Open and non-discriminatory access
- Clear definitions, written rules
- Diversity of participation
 - Social engagement
 - Effective tools for participation
- Infrastructure held and governed as a Common Pool Resource
- Governed by a neutral (a multi-level?) authoritative organisation

- What are we doing
- How public administrations can help

Establish the foundations for

- Objectives

- Ensuring an ordered, coherent and coordinated action to boost
 - the **deployment of Next Generation Networks**
 - a varied supply of advanced telecommunication services and internet access **for the general population**
- Easing the implementation and deployment of **smart public services**

Requirements

- Maximise the efficiency and synergies of public and private actions and investments
 - Stimulating the investment avoiding duplicities / overbuilding
 - Making it more sustainable by reducing recurrent expenditures
 - Maximising the usage and the return
 - Promote variety of options neither discriminating nor influencing business models (without excluding anybody/any option)
- Establish the simple and clear bases for regional and local regulation and administrative procedures
- Agile and responsive coordination, preserving the unity and global efficiency
 - Adjusting the actions to the changing reality and integrating the new technologies and the innovative solutions
 - Respecting the regional and local particularities

Public infraestructure deployments

Possible usages

1) Self-service

- Territorial and public connectivity
 - Pub. Adm. premisses
 - IoT

2) Private exploitation

- Infrastructure awarded to a private, public or public-private enterprise
- Retail supply to the general population or wholesale to other ISPs through resale subcontracting

3) All this but Also....As a **Common Pool Resource**

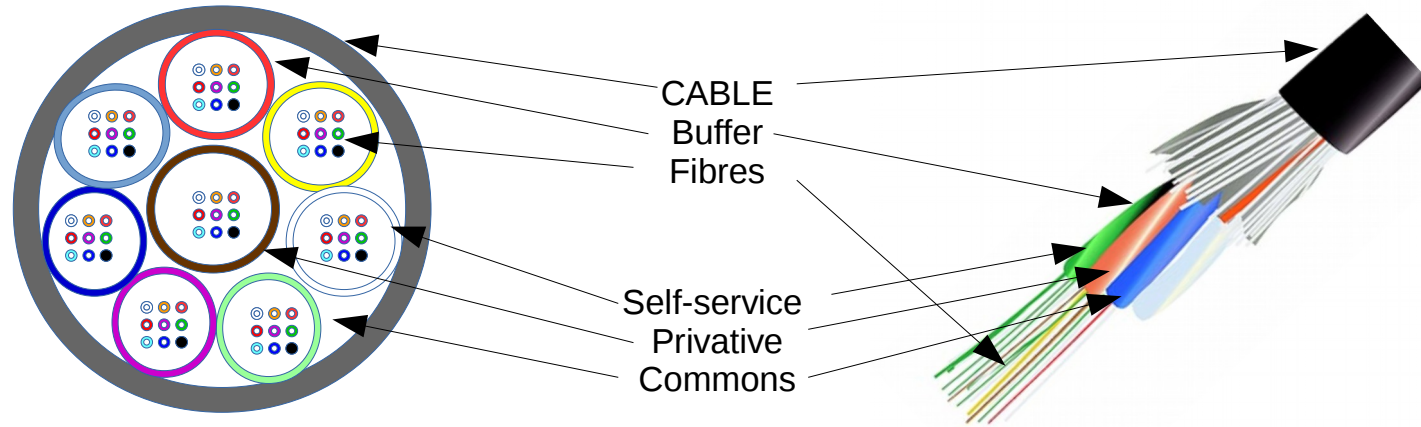
- Infrastructure is operated and share among the ISPs on equal terms
- Steward by a non-profit organisation which ensures the neutral exploitation without conflicts of interest with the ISPs exploiting the resources

How to include all uses without exclusions?

Adopting the **Universal** deployment format....

- Harmonises all possible usages (Self-service, private, Commons Pool Resource)
- Implementation in FO / NGN:
 - Cables with several buffers, buffers with several fibres
 - A buffer assigned to each usage; the rest assigned on-demand
 - When there are no spare fibres left: sharing enforced

Universal format example NGN implementation



Universal format – CAPEX

- Criteria of public administrations intervention:
 - 100% public or public-private, regardless the rate:
 - Universal format **always**
 - 100% private
 - ISPs
 - Up to the investor; no means to intervene
 - Avoid fraud: make sure the supply is available to everybody, at market / affordable price (within BIAC)
 - Self-provision (premises interconnection, lack of ISPs supply, etc.)
 - Promote the adoption of the public format, which already foresees the self-provision
 - Spare dug for the universal format
 - In any civil work

Universal format – OPEX

- Paid by those who make commercial usage always
 - Because they transfer these costs to their costumers
 - This is guarantees they contribute the required resources
- At least one ISP must commit to SLAs but can be more than one (concurrency is OK)
 - Compensation system activated if ISPs > 1
 - Dark fibre leasing costs also taken into account