Sumak Yachay
Devenir Sociedad del Conocimiento Común y Abierto
Designing the FLOK Society

v.1.5.2

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Abstract

This is the expandable and revisable source document for the design of a process of social—as well as popular and institutional—and experts' collaboration and participation that will result in a productive, as opposed to merely expository, summit. The objective is to coordinate and develop a global participatory process, of direct application at the national level, aiming at changing the productive matrix of Ecuador towards an open commons of knowledge economy. The summit will ultimately result in the creation of 10 foundational documents for the development of state legislation and public policies—especially aimed at the creation of the Ecuadorian Organic Code for the Social Knowledge Economy—and the re-inforcement of the productive knowledge networks that already exist in the country. This document details the conceptual, economic and philosophical framework of the process, as well as the historical and cognitive-economic context, the organizing principles guiding its development, the collaborative and communicative digital tools it will utilize and a planning proposal for the entire process-summit.

Key Words

Knowledge society, FLOK (Free/Libre Open Knowledge) society, *sumak kawsay, sumak yachay*[1], Knowledge *Pachamama*[2], collaborative investigation, process-summit, copyleft, free software, commons, pro-commons, cognitive autonomy, community economy, social economy of knowledge.

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1   Translator's note: The Quichua phrase *sumak yachay* roughly translates as "to understand deeply or well," or "good knowledge," while *sumak kawsay* means "good living" or "buen vivir" in Spanish and refers to living well within various contexts—social, political, in relationship with the natural environment, etc.

2   Translator's note: *Pachamama* is an Andean deity and mythological figure equivalent to "Mother Earth."

"As sons and daughters of Pachamama, of Mother Earth, we offer up to the world our cultural, spiritual, linguistic and historical principles and cultural codes, the ancestral knowledge of our grandparents, the historical memory that rests in our architecture, our ceramics, our textiles, all of the safeguarded Knowledge that our ancestors whisper in silence and that we can "read" in their wrinkles and in our books of stone, the words of our forefathers with which lakes and seas moisten our tongues, the ancestral stories that our genes awaken and that speak within us, that the mountains and hills tell to us, that the winds blow into our ears." CHOQUEHUANCA[3]

"The Knowledge Revolution proposes innovation, science and technology as the foundations for a change in the productive structure, which is conceived as a distinct form of production and consumption. This transition will take the country from a phase of dependence on finite resources to one of infinite resources, such as science, technology and knowledge." SENPLADES, *National Plan for Good Living 2013-2017*, p.19

"To share knowledge is an action done by intelligent beings who have proved that knowledge is a good that grows only as long as it is shared." Prof. Mario Hector Vogel

"*Ipsa scientia potestas est* [Knowledge itself is power]." Francis Bacon, *Meditationes Sacrae,* 1597.

1. Anticipation

On March the 1st , 2014, in Quito, Sandra (Ecuadorean, 25 years old, Doctorate in Community Work) and her partner Alejandro (Colombian, 26 years old, B.A. in software engineering, M.Sc. in Global IT Economy) enter a basketball stadium prepared specially for the occasion. They don't know it, yet, but they won't leave this stadium for the next 8 days. It's a production space, of which they have formed a part for months, ever since Sandra first encountered its virtual space and contributed in the development of some strategic lines about community digital development at her apartment. They enter. Observing all of the activity in the stadium, as if it were a jungle valley, they take in the ecosystem of cables, people, machines, lights and processes. Thirty-six worktables form a kind of functional cluster within a larger global mass. Gigantic screens show the flow of information crossing between and being produced by participants. People come and go between clusters. A graphic shows the progress achieved thus far in the work documents. Screen 4 shows the contributions being accepted to the "Strategic Proposal for the Scientific Commons." Screen 1 shows a summary of the global workflow achieved until now: 12,987 lines of legal, conceptual and political code are now stable, 4,567 are in beta… and the counter just added another four lines. There below, amid all the activity of this knowledge jungle, Sandra and Alejandro step forward to meet Michel Bauwens, who they recognize from the compulsory online courses all participants took before the summit (and which they accessed from the developing platform http://edx.iaen.edu.ec).

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3   Choquehuanca Céspedes, D. (2010). Hacia una reconstrucción del buen vivir. *America Latina en Movimiento*, *452*, 8–12.

Now they know how to define a real p2p economy based on open and participatory processes. They discuss details with Michel and help to advance the document "7. Territorialization of Cognitive Work." Sandra starts a conversation with a European parliamentarian from the Pirate Party. Last week, they had connected in order to discuss out how to implement privacy and free software policies for rural cyber-cafes, in one of which Sandra, at 17, had discovered Wikipedia by clicking an icon with an "E," which she then associated with the Internet. They get to work by editing paragraphs 34 and 78 of the source document. Isaac Hacksimov is the editor that will work with two other reviewers to revise the new version of the paragraphs that will ultimately go into the foundational document for the National Assemby. Alejandro takes a turn at translating and documenting the process, some Swiss hackers in Telecomix are twittering the citizen encryption group meeting and making translation proxies. Now they have to translate one of the tweets for an Ecuadorean Parlementarian who is worried about corruption: "open the data and follow the links, transparency is democracy." The discussion goes on, the production keeps mounting… **a new ground is being written.**

2. Theoretical Framework: *sumak yachay* as second nature and a cognitive habitat of *buen vivir.*

Knowledge, which was once a far-off sun, a light like sword against darkness, wielded only by a single hand (that of the shaman, the priest, the alchemist, the philosopher) is today, thanks to new technologies, Mother Earth of lights, cyberspace, knowledge forests, cultural and productive ecosystems that are diverse, multiple, appropriable, accessible… infinite.

Today, knowledge workers, cultural laborers, cultivators, are 1) the sector with the largest economic gains[4], with more than 230 million cognitive workers[5], and 2) contribute the largest share of global economic growth[6]. Knowledge is a recursive (or exponential) factor for both growth and social empowerment: with increased knowledge there is increased economic capacity, but there is also greater capacity to achieve improved conditions for the (re)production of life and of knowledge… Moreover, there is a factor that makes knowledge especially valuable and beneficial. In contrast with other scarce and exclusive goods, such as primary goods like land or petroleum, knowledge has only to be created once for it to benefit *everyone forever.* We say that it CAN "benefit everyone forever" because history has left us with arid land—intellectual property encompasses almost everything. Armies asphalt over knowledge's frontiers; they patrol the walls guarding fertile ground. We are on the battlefield that has defined the Citizen's Revolution of *buen vivir* in terms of knowledge and its cyber tools: a globalized colonialist inheritance and interference defined by a cognitive individualism based on consumption and the transaction of knowledge in the form of intellectual property. This colonialist inheritance is now confronted by, on one hand, the indigenous traditions of *yachay*, of the (re)production of community knowledge and, on the other hand, the new forms of commons digital collaboration defined by hacker ethics and culture. The principles of reciprocity (*randi-randi*) and the organization of community work[7] (*maki-maki*) resonate within

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4   It is the sector with the highest economic growth, when compared with agriculture, primary materials extraction, armies, etc.

5   Manyika, J., Chui, M., Bughin, J., Dobbs, R., Bisson, P., & Marrs, A. (2013). *Disruptive technologies: Advances that will transform life, business, and the global economy.* McKinsey Global Institute.

6   A country isn't rich because it has the most petroleum or the biggest labor force, but because it has greater cognitive production: greater efficiency in logistical processes, better design, more information, etc.

7   Makas, L. (2010). Sumak Kawsay: la vida en plenitud. *America Latina en Movimiento, 452,* 14–17.

what we could call a digital Knowledge *Pachamama* (the commons of the general intellect).

When faced with the barricades that guard cognitive territories[8], we can embrace the real possibility of planting, tending and fertilizing the communal grounds of open knowledge[9]. The Ecuadorian government has the firm will to promote, preserve and incentivize a society of open knowledge, a commons cognitive economy, a cultural *Pachamama*, the technology, the knowledge and open, free, accessible information for everyone. All forms of life involve some form of knowledge, a relationship with the environment, regulating the exchange of matter and energy[10]. To dwell within is to understand, and *buen vivir* requires good knowledge. Open, commons, shared knowledge is a habitat and a necessity for *buen vivir*. Only the "better life" value system demands the exclusion of access to knowledge; *buen vivir* and *sumak kawsay* demand, within this totality of knowledge, a *sumak yachay* for knowledge both old and new. This is why it is critical to develop good knowledge, which will benefit everyone and create a rich and fertile environment for our cultural, social, economic and political lives (see Figure Figure.. on page…)—ultimately, to create a productive structure based on the commons of open knowledge.
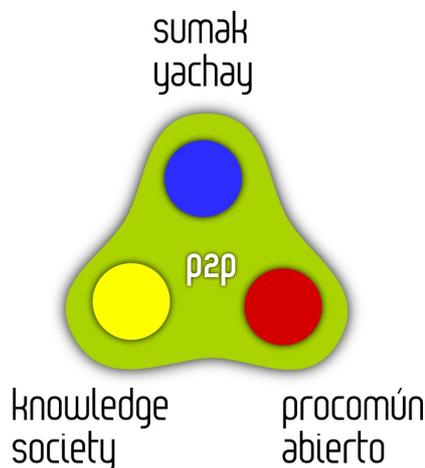

Figure 1: Conceptual triad of the process-summit: sumak yachay, above, symbolizes aspiring to achieve harmony with the Knowledge Pachamama. Knowledge society, below left, references the global knowledge society as the habitat within which the Ecuadorian productive structure transition will occur. Finally, open commons defines the new productive structure and its value system based on the commons as the basis for open and collective wealth as a condition for social empowerment.

Small and large gardens of "good understanding" already exist, even some forests, but… How does one cultivate an Amazonian jungle, a complete ecosystem of free knowledge? It must be an ecosystem that can withstand desertification or the attacks of invasive species that leach away collective resources, one that can't easily be violated. How to accomplish all this? Planting the five most beautiful flowers in the world won't work, nor will throwing 3 million seeds over a desert, nor would it work to design a French garden requiring a permanent army of gardeners to keep its labyrinths bountiful.

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8   Murdock, G. (2001). Against enclosure: Rethinking the cultural commons. In *British Cultural Studies* (pp. 443–460).
9   Bauwens, M., Mendoza, N., & Iacomella, F. (2012).*Synthetic Overview of the Collaborative Economy*. P2P Foundation. Source: http://p2p.coop/files/reports/collaborative-economy-2012.pdf
10   Bourgine, P., & Stewart, J. (2004). Autopoiesis and cognition.*Artificial life*, *10*(3), 327–345.
     Varela, F. J. (1997). Patterns of life: Intertwining identity and cognition. *Brain and cognition*, *34*(1), 72–87.

Nature itself holds the key: the ecosystemic wealth and the homeodynamic harmony of a forest doesn't receive same quantity of sunlight that the entire territory it occupies receives, nor does it receive all of the water that flows through its rivers. The same quantity of sunlight falls on a desert and on the Amazon, the same quantity of water rains into the sea as into the Yasuní. The jungle's secret is that it is so powerful and rich that it creates its own climate, its own rivers, its shadows, its humus, and its earth.

We must begin to plant, to bring the crops, to cultivate near the oasis, to take away the barriers and to began living on and within the jungle according to what grows in our hands, to allow the forests to connect, to open up the gardens, tear away the asphalt, to let in the sun and the rain, to let the earth breathe, to clean the water, to send away the toxic industries, to prevent monocultures…and the jungle will grow.

3. Political-Institutional Framework in Ecuador and the Free Software and Copyleft Movement.

A change in the productive structure towards a society based on the open commons of knowledge is one of the central proposals of the new National Plan for Good Living of Ecuador:

> "The Knowledge Revolution proposes innovation, science and technology as the foundations for a change in the productive structure, which is conceived as a distinct form of production and consumption. This transition will take the country from a phase of dependence on finite resources to one of infinite resources, such as science, technology and knowledge." SENPLADES, *National Plan for Good Living 2013-2017*, p.19

This task of transformation, however, is extraordinarily complex. A productive structure based on knowledge requires the convergence of wildly diverse elements, such as technology development policies, academic institutions, the management of ancestral knowledge, public documentation and documentation formats, the regulation of the telecommunication and the software development sector, and the management of cultural rights. The success of this productive structure depends on the integrated design of a series of transformations on different levels and in different areas of production, social action, and institutional processes. Moreover, the Ecuadorian government is not proposing just any sort of knowledge economy, but one based on *free* and *commons* knowledge:

> The accumulation, distribution, and redistribution strategy, in agreement with the 2013-2017 Government Program, proposes the development of an "open commons of knowledge". This development model includes the creation and adoption of creative ideas, as well as the potential production of new goods and services and the distribution of their benefits. The management of knowledge—seen as a public, common and open good—is a constitutional principle and is more efficient economically than other, closed models. (National Plan for Good Living 2013-2017, p. 67)

Two large political projects converge within this proposal: that of *buen vivir* of the Ecuadorian Citizen's Revolution, on one hand, and the free culture and software movement on the other. The first project elevates the indigenous Andean concept of *sumak yachay* as a programmatic axis for a citizen's revolution: define and develop a social transformation based on an equilibrium between nature and human relations that permits personal development without the exclusion or subordination of nature or of hu-

man beings[11]. The second large project comes from the hacker culture, the copyleft and p2p movements, and the defense of the commons in the technology era: the democratization of knowledge and technology through electronic networks and social empowerment. These will be achieved by utilizing the existent, infinite knowledge resources and by the distributive cooperation of the socio-technical community. The achievements and services that the international free software community has achieved in the last 20 years are the best examples of knowledge development and a productive economy based on *buen vivir*. An example is GNU/Linux, a free and complete operating system that meets all of the needs of individuals and institutions and which is very similar in quality and quantity to the private software on the market. In 2001, the estimated price of a GNU/Linux system such as Debian was around US$1,848,225,000[12]. In 2007 the quantity of code in the system had increased six-fold[13], while a rough estimate of today's theoretical production cost of GNU/Linux is more than US$10 billion.

Along with the free software movement, there has been a surge in the number of movements in other areas—such as industrial design and biotechnologies—that have the same emancipating, collaborative and open objective, which they aim to achieve by means of free culture, the defense of digital rights and free access to scientific knowledge. This is all done in pursuit of a distributive knowledge economy. These movements are uniting with community efforts that aim to rescue and protect ancestral knowledge and natural resources from the threats of decline, from the cultural and biotechnological monopolies[14] of the large patent industries, and from becoming mere cultural entertainment. In all of these commons efforts, various economic relationships have been established without recourse to intellectual property, and all exist within the context of cognitive capitalism—from open access scientific publishers like PLoS[15] or Frontiersin[16] to the seed banks and agricultural cooperatives[17] to open telecommunications networks like Guifi[18] (with more than 50,000 nodes) or the development of free hardware like Arduino[19] or the open and collaborative design for construction and agricultural machinery at prices lower than on the market[20]—just to mention some economically viable production methods that are being developed around the globe.

To all of this we must add the series of transformations that are occurring in Ecuador in the areas of communication, higher education or its international support of hacktivists fighting for transparency and digital rights. Through the initiative *Designing the FLOK Society*, Ecuador seeks to establish a dialogue with the social network—an innovative and

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11 Acosta, A. (2010). El Buen Vivir en el camino del post-desarrollo: Una lectura desde la Constitución de Montecristi. *Policy Paper*, 9.
    Asamblea Constituyente. (2008). Constitución de la República del Ecuador. *Ciudad Alfaro*.
    Gudynas, E. (2011). Buen Vivir: Germinando alternativas al desarrollo. *América Latina en movimiento*, *462*, 1–20.
    Houtart, F. (2011). El concepto de Sumak kawsay (buen vivir) y su correspondencia con el bien común de la humanidad. *Revista de filosofía*, *29*(69), 7–33.
    SEMPLADES. (2013). *Plan Nacional para el Buen Vivir 2013-2017*. Quito, Ecuador.

12 González-Barahona, J. M., Perez, M. O., de las Heras Quirós, P., González, J. C., & Olivera, V. M. (2001). Counting potatoes: the size of Debian 2.2. *Upgrade Magazine*, *2*(6), 60–66.

13 Gonzalez-Barahona, J. M., Robles, G., Michlmayr, M., Amor, J. J., & German, D. M. (2009). Macro-level software evolution: a case study of a large software compilation. *Empirical Software Engineering*, *14*(3), 262–285. doi:10.1007/s10664-008-9100-x

14 Birke, L. I. A., & Hubbard, R. (1995). *Reinventing biology: respect for life and the creation of knowledge*. Bloomington: Indiana University Press.
    Shiva, V. (2001). *Patents: myths and reality*. New Delhi; New York, NY: Penguin Books.

15 http://www.plos.org

16 http://frontiersin.org

17 http://beejbachaoandolan.org

18 http://guifi.net

19 http://arduino.cc

20 http://opensourceecology.org

productive dialogue that will permit the country to better face the challenge of creating new economic and social models based on the open commons of knowledge, which is the human specie's infinite second nature[21].

4. Organizing principles and thematic blocks

The challenge being faced is extraordinarily complex. It requires the participation of international experts, academic investigators, hackers, lawyers, community leaders, activists, business leaders, etc., in an investigatory process that will define and create policies and regulatory principles in order to guarantee the success of a productive model based on the open commons of knowledge (see Figure 2 on page 9 for a diagram of the development areas and added components).

Below are a series of organizing principles of the process's architecture, such as thematic blocks, or knowledge areas, that should be integrated into the new productive structure.

4.1 Organizing Principles

- **Conceptualize and create procedures:** Starting with this initial document, it is necessary to develop the concept of an open process. We will not speak of an event or a congress (which is just a moment, a photo, an instant during the process), we will not speak of a big document (which is a result). Instead, we will speak of a process, of growth, of development, of the creation of the Knowledge Pachamama. This process is a model that is replicable, replicant, territorialized; it is an example that will fertilize others. Open and connected around the globe, the process itself, not just its results or summits. Above all, we must create the foundations for a conceptual framework defining what exactly is a constitutive process of *sumak yachay* and its resonances in the commons cyber-culture.

- **Think, investigate, learn**: There cannot be a change in the effective productive structure if we do not improve upon the knowledge that is available to us now. This process requires the deployment of a local and global investigation network that will enable the effective and operative design of the new productive structure. At the same time, those of us involved in the process are going to have to learn by doing (in the pure constructivist style) during this process of investigation-production.

- **Communicate, seduce, invite**: We need a strong communication team with at least two areas of expertise: one social and one technical. We must create a national narrative about the topic, using strong and potent language. Another narrative must be created for the technical world, promoting the challenge of investigating and designing the process for an open knowledge society, something that will mobilize hackers, investigators, thinkers, developers, lawyers, etc.

- **Connect:** We must connect the process in order to achieve sustainable growth. It's not enough to connect to hubs (central nodes of national development: ministers, high government functionaries, etc.), because they are already hyper-connected and saturated. Neither can we connect only to broadcasting mediums (one-to-many, mass microphones, streaming) or try to reach the largest, but possibly a random, audience. It has to be scale-less[22]--a telecommunications student

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21 In analogy with the right granted to the *Pachamama* in article 71 of the Ecuatorian Constitution
22 Barabasi, A.-L. (2003). *Linked: How Everything Is Connected to Everything Else and What It Means*. Plume.

with John Perry Barlow, the linuxers association with the local artist from the Contemporary Arts Center, Michel Bauwens with the intrepid lawyer, Stallman with the IAEN professor… and it should all be artisanal and organic. All levels should be connected by improbable connections, long-reaching networks, and multi-scale links. At the end, the nation should be injected, planted and irrigated with open cognitive growth processes at all levels, which will foster local, autonomous development with feedback at the state, regional and global scale.

1. Hardware y conectividad
2. Software Libre
3. Cultura Libre
4. Educación y sociedad del conocimiento
5. Políticas científicas y de innovación
6. Procomún inmaterial industrial y bio/nano tecnologías
7. Open Data, transparencia y TIC en la administración
8. Territorialización del trabajo cognitivo
9. Seguridad cibernética
10. Integración
F. Facilitación y traducción
C. Comunicación
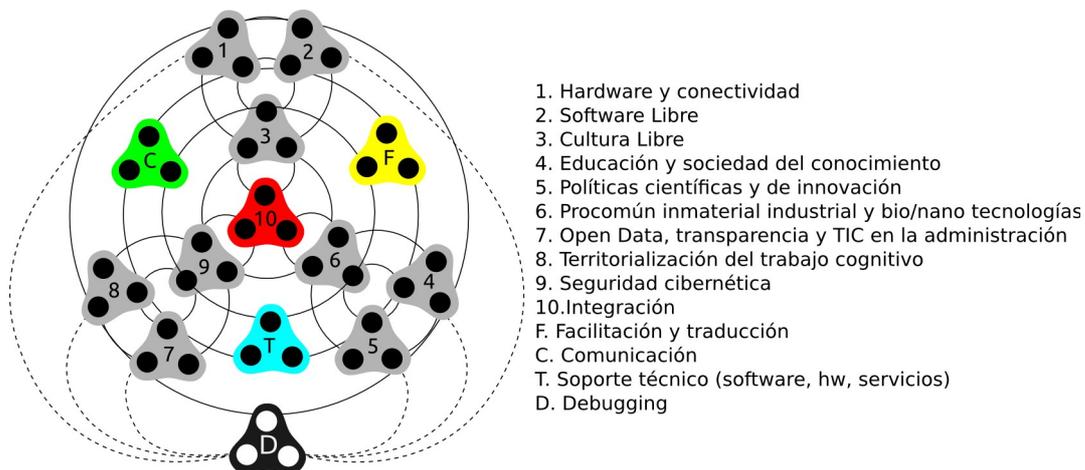T. Soporte técnico (software, hw, servicios)
D. Debugging

Figure 2: The summit's participatory architecture; each area is represented by a triad. The triads are organized according to areas of investigation-production that all connect to a central integrator. Transversal links between areas guarantee a distributive integration. There are transversal teams of Communication, Facilitation, Technical Support and Debugging that will attempt to find application and incompatibility errors and other technical barriers for their effective implantation. Hardware and Connectivity

1. Free Software
2. Free Culture
3. Knowledge Education & Knowledge Society
4. Science and Innovation Policies
5. Immaterial, Industrial, and Bio/Nano Technologies Commons
6. Open Data, Transparency, and ICT in Administration
7. Cognitive Work Territorialization
8. Cyber Security
9. Integration
F. Facilitation and Translation
C. Communication
T. Technical Support (Software, HW, Services)
D. Debugging

- **Produce:** The production process should create a participatory architecture, so that once the summit arrives, the production develops upon previous, unfinished work (work documents, production platforms, models, online resources, unfinished discussions, etc.). We can think of the production as divided into sectors or dimensions of the knowledge society that culminate in a series of practical docu-

Borge-Holthoefer, J., Rivero, A., García, I., Cauhé, E., Ferrer, A., Ferrer, D., … Moreno, Y. (2011). Structural and Dynamical Patterns on Online Social Networks: The Spanish May 15th Movement as a Case Study. *PLoS ONE*, *6*(8), e23883. doi:10.1371/journal.pone.0023883

ments: maps of vital networks for the Ecuadorian techno-cultural ecosystem, analysis of necessities, growth

- **Multicultural equality and integration**: We must insure the inclusion of disadvantaged social sectors; indigenous groups, women, and Afro-Americans should be preferentially invited. We are starting by using non-sexist language, making equal use of the feminine and masculine grammatical forms of pronouns, professions or human actors, and we will always seek to prioritize the participation of disadvantaged sectors.

- **Continued support and monitoring**: We must provide continuity and monitoring of the results, in their social, legislative and institutional implementation as well as enabling their international replication within the Latin American framework. In order to achieve this, the participation of Ecuadorian and global citizens is critical for the monitoring of the post-summit development and implantation of the policies designed during the process.

- **Prototype the production of open commons of knowledge**: The event itself should serve as a model for knowledge production: the software, the graphic identity, the texts, the economy, the contracts, the authorship, and all types of processes should be accessible and visible, with copyleft licenses, guaranteeing transparency and public citizen auditing, as well as the reutilization and the adaptation to other contexts.

4.2 Thematic Areas

1. **Hardware and Connectivity: Sustainability and sovereignty over technological infrastructure.**

   a. Hardware: Free and sustainable hardware, buying criteria, technology market problems, hardware sovereignty, recycling, etc.

   b. Connectivity: It is necessary to distinguish between internal and external networks--namely, institutional/community/citizen connectivity and global connectivity (neutral points, the UNASUR ring, trans-oceanic cables, satellites, etc.), as well as free networks (see http://guifi.net).

   c. Energy: self-managed energy systems for rural areas and data-centers, etc.

2. **Free Software**

   a. Education: beginning with the base: the street, schools, television, videogames, social networks, cybercafés and phone centers.

   b. Implementation: migration programs for public administration, migration facilitation for associations, people, businesses, etc.

   c. Production and development: obligatorily display in public places the current developments in public administration.

   d. Sovereignty and autonomy policies: for example obligatorily be able to buy computers without operating systems, ie. without Windows and with the cost of Windows discounted from the price.

3. **Free Culture**

a. Management licenses and associations.

b. Author sustainability: remuneration, development, public investment policies, etc.

c. Publishing mediums: repositories, etc.

d. Areas: resolve problems in the previous points according to area of production (film, music, literature, art, etc.).

4. **Knowledge Education and Knowledge Society**

a. Create and distribute homework, tools and indicators about knowledge and its benefits in teacher planning.

b. Copyleft in textbooks and collaborative and diverse curriculum develop at the national level.

c. Management, facilitation and certification of non-formal education and non-academic knowledge.

5. **Science Policies**

a. Adjustment evaluation indicators of the results, and systems and scientific processes towards the open commons of knowledge productive structure.

b. Open Access and Open Data in Science: Publication and repositories of results and investigation processes, rethinking all scientific communication.

c. Development of collaborative scientific production systems at the national level.

d. Architecture of the investigation system: investigation groups and projects, networks, evaluation agencies, events, institutions, etc.

6. **Immaterial, Industrial, Bio/Nano Technologies and Biodiversity Commons**

a. Industrial patent alternatives: towards an open design for local industries and self-management.

b. Biodiversity and the rights of the Pachamama and natural heritage: defense against harm to Nature's genetic and biotechnological wealth[23].

c. Health and the pharmaceutical industry.

7. **Territorialization of Cognitive Work**

a. Local knowledge economy: knowledge and infrastructure from and for communities.

b. Urbanism and knowledge society.

c. Space models of cognitive work (co-working, cybercafés, cognitive cooperatives, etc.).

8. **Open Data, Transparency and ICT in Public Administration**

a. Accessibility and open forms of public production

b. Data structure for public administration: open data and linked data

c. Digital management and governance models

9. **Cyber Security**

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23 According to articles 322 and 402 in the Constitution of 2008 of the Ecuadorian Republic.

a. Technological sovereignty, cyber-defense and national security programs

b. Social empowerment for cyber-security

c. Certificates and public administration

5. Strategic planning proposal for the process

The objective of the process-summit is to articulate and facilitate a global process of investigation and the design of a productive structure based on the open commons of knowledge. This will be achieved by bringing in institutional, regional, national and community actors. The process-summit will use a series of open Internet documents in the form of wikis and a network of work meetings that will extend throughout time and (cyber-) space and that will converge in the summit. The coordinating team of *Designing the FLOK Society* (see human resources section below) will be tasked with coordinating the creating of the 10 documents as well as coordinating the political process from their base at IAEN through meetings and reports with the Ministry of Knowledge and Human Talent, SENESCYT and other Ecuadorian public institutions. It is a process of investigating, defining, producing and communicating the importance of public policies, all of which will require a participatory architecture that permits the assemblage of diverse proposals and knowledge. One of the most important objectives is that the 10 resultant documents should be of immediate utility for the Organic Code for the Social Knowledge Economy and the National Plan for Good Living.

The process-summit has various phases (see calendar below): first the event will open up for national and international participation. At the national level, local associations and institutions will be contacted in order to do a series of meetings and presentations of the project (including the diffusion of this document). At the international level, a communication campaign in Spanish and English will be launched on the web and social mediums. The participation of investigators and actors of all kinds in each area will be needed. For the final summit, we want to invite those participants that have been the most active, financing their travel and providing remuneration for the workweek during the summit. Some of the special guests will be contacted and contracted months before the summit so that they can participate during the process, fill the role of coordinators, or contribute to the base document.

Figure 3: Participation flow during the investigation-production process. See key for more details.

Below we explain the guidelines of the architecture for participation, digital tools, the activities and results calendar and the human resources needs for the process-summit.

5.1   Participatory Architecture and Processes

Participation will integrate the following processes (which can be seen in a flow diagram for participation in investigation in Figure 3 on page 13):

1. In-person work meetings with public associations and public institutions in which the summit-process will be presented and the participatory channels will be opened up.

2. Surveys with social agents and international experts. Sociological studies of the surveys and maps of the existent cognitive productive forces in Ecuador, as well as possible synergies with global sectors and networks.

3. Invitations for national and international experts so that they can develop concrete proposals for each area, which will serve as rough drafts.

4. Call out for online work sessions using available Etherpads (see tools section) and Mumble audio chats.

5. Revision of proposals by experts and other social and institutional actors.

6. Publication of work texts in a wiki (see work tools) and collaborative revision and re-editing (monitored by editors)

7. Discussion meetings for each one of the proposals in their medium phase of elaboration and concretion.

8. Final elaboration during the summit.

This proposal for collaborative participation and editing still requires development in more detail; some development moments and processes are now included in the provisional calendar but the results of processes 1 and 2 will set the pace for the following steps. The documents will be created according to thematic areas (see above), each one of which will require its own adjustments and rhythms.

5.2   Preliminary and incomplete list of actors that could be invited

Below is a preliminary and incomplete list of both national and international institutions and actors that could be invited to the process-summit in order to take an active role. This list should be completed in the first development phase.

International	Civil Society	Ecuadorian Institutions
http://p2pfoundation.net	ASLE	SENESCYT
Electronic Frontier Foundation	http://creativecommons.ec	Coordinating Ministry of Knowledge and Human talent
http://freeknowledge.eu	Infodesarrollo	SENPLADES
http://fsf.org Free Software Foundation	Radialistas	Office of the Vice-President (Change in the Productive Structure Department)

PLoS Public Library of Science	APC Association for Progressive Communication	SECOM
Archive.org	CETID	SNAP
LaQuadratureDuNet	AMJUMPRE.org.ec	Various or all Ecuadorian universities
Mozilla Foundation	CDIecuador.org	Ministry of Telecommunications and Information Society
Fundación Carisma (Colombia)	E-ducate.org	Ministry of Education
Open Knowledge Foundation http://okfn.org	Fedaeps.org	FLACSO
Xnet http://whois--x.net + http://fcforum.net	Thoughtworks Ecuador	
Open Source Ecology http://opensourceecology.org		
Arduino Foundation		

5.3 Digital tools for collaborative investigation and production and for the communication of proposals and results

Below we explain the series of tools that are now available in order to articulate the process of investigation, production, and communication:

- EDX: an edx course about the open commons of knowledge. The system is being constructed at http://cursos.iaen.edu.ec/

- MediaWiki: the most stable and complete wiki platform (that utilizes Wikipedia), which permits the control of versions of different documents, user tabs, uploading documents, etc. Found at http://flok-society.iaen.edu.ec/wiki We are going to add the following properties:

  - Semanticized

  - Three languages

  - Special control of versions, languages, and reviewers or editors that will permit new changes

  - Map-making software that permits the mapping of institutions, communities and associations in Ecuador.

- Wordpress: [now operative: http://flok-society.iaen.edu.ec]

  - Software surveys [perhaps in the wiki]

  - Focused on communication: Portal with info organized into 4 blocks y according to how to participate.

  - In 3 languages: Quichua, Spanish and English

- o Include collaborator-participant tabs, integrating user information from medi-awiki.

- Mumble: audio communication server that permits the creation of meeting rooms for work. The Mumble client is available for Windows, Mac and GNU/Linux: http://flok-society.iean.edu.ec/mumble

- Etherpad that permits writing in real time for up to 16 people at the same time without needing to create user accounts or having to identify themselves: http://flok-society.iaen.edu.ec/pad

- Shared bibliography in Zotero for open knowledge topics, etc.

5.4 Calendar

The process is divided in 7 phases:

1. **[GP] Gestation Phase**: August 1-30th. Project design, study contractual necessities, creation of teams and planning of institutional participation.

2. **[IP] Incubation Phase**: September 1-30th. First round of surveys and deployment of contact networks, creation of plans and basic human and technical infrastructure.

3. **[DP1] Development Phase 1**: October 1st – November 25th. Testing launch and official launch, articulation of first participatory processes and mini-summit.

4. **[DP2] Development Phase 2**: November 25th – January 20th. Monitoring of production process, work meetings, and communication campaigns.

5. **[SP] Summit Phase**: January 20th – March 15th. Preparation for and development of the summit, results and document elaboration.

6. **[PSP] Post-summit Phase**: March 15th – April 30th. Elaboration, discussion, revision and edition of the results.

7. **[IMP] Implementation and Monitoring Phase**: this period will vary (possibly one or two years, covers the translation of the results to specific legislative initiatives, as well as the monitoring by civil society and institutional actors for effective implementation.

Below is a detailed calendar with dates, as well as the parts of the process and results.

Date	Process	Results and Notes
PHASE 1: Gestation		
August 1-30, 2013	Preliminary formation and development. Meetings with social institutions and actors in order to present the project. Invitations to most important actors.	- Web beta - Wiki with source document - Conceptual development finished - Theoretical design of the participatory architecture - Identification of participating actors and participants - Detailed definition of work team and search for members - Consensual work document

		- Bibliographic repository for existing national and international documentation about open knowledge
PHASE 2: Incubation		
September 1-30, 2013	Deployment and development of support network, foundational documents and informatics systems for participation. First participatory round via surveys Meetings with institutions and social actors in order to coordinate participation. Invite most important actors and solicit reports	- Map of support network and possible participating agents, level of participation. - Beta versions of foundational documents. - Design of informatics system for participation and collective production. - Contract coordination team members. - Survey development by area. - Survey result analysis. - Integration of relevant investigations into repository and summary document.
PHASE 3: Development 1		
October 5, 2013	Test launch of the participatory platform and communication campaign Finish inviting most important actors	- Web and social network communication campaign design to create publicity for process-summit. - Web with user accounts created for actors already involved in process and those contacted. -Foundational documents uploaded in order to encourage participation. - Invite list for confirmed special guests now available.
October 20, 2013	Public launch of participatory and communication proposal	- Web of the process and participatory architecture in place. - Results monitoring for participation, visits and launch diffusion.
October 20 –November 20, 2013	Irrigation, care, analog-digital hybridization and integration of participatory process.	- Development of implicated participant list. - Process monitoring report. - Meetings with local actors and putting results on the online platform.
November 18-21, 2013	**Preparatory meeting** with principal actors and institutions.	- Results discussion. - Confirmed list of special guests and national actors for the final event.
PHASE 4: Development 2		
November 27, 2013	**Second public launch** geared towards final meeting.	- Launch campaign and web announcing guests and preliminary results. - Inscription system.
January 20, 2014	**Third public launch** before event.	- Definitive list of participants. - Summit program, posters, etc.
PHASE 5: Summit		

February 1-15, 2014	Preparations for the summit	- Testing of network and informatics system - List revision
February 17-23, 2014	**Summit**	- 10 programmatic documents in alpha version. - Media impact dossier
February 24 – March 7, 2014	Results elaboration	- 10 documents are revised, translated, unified in terms of format, etc.
March 15, 2014	**Publication and diffusion of open results**	- Final publication of summit results, beta version - Diffusion campaign
PHASE 6: Post-summit		
March 15	**Publication and diffusion of open results**	- Final publication of summit results in beta version, open for debate and revision
March 16 – April 15, 2014	**Final phase** of discussion and document revision	- Stable and closed version of documents.
April 15-30	**Public consultation on results**	- Public consultation on results.
PHASE 7: Implementation and monitoring		
Depends on institutional agenda, covers translation phase for initial results to specific legislative initiatives, as well as implementation monitoring by civil society.		

5.5 Human Resources

The human resources needed for a project of this size are very extensive—200-300 people in total. We have divided the participants or implicated members into three large blocks: a) coordinating team (with various sub-teams), b) participant network, and c) editing and revision network. Below the functions and types of teams and contracts or implication forms are described for the three big categories.

Coordinating Teams

A capable event development team is absolutely necessary. It will be composed of the following:

- **Strategic and political-institutional coordination team**: 5-7 people (advisors, *prometeos*[24], directors, ministers, etc.) that share a vision of the process-summit and that coordinate its content in terms of strategy and of integration into the Ecuadorian political-institutional project.

- **Design and integration team**: this is the most important team, made up of 5-10 people and that includes at least two or three that are dedicated exclusively to monitoring everything. At minimum, a coordinator from each one of the following teams should also be included.

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24 Translator's note: *Prometeos*, coming from the Spanish word for Prometheus, are national and international experts hired by the Ecuadorian government in order to work on public projects of national importance.

- **Technical design team**: responsible for the designs, implementation and maintenance of the online collaborative production architecture, the web, digital coordination system during the summit, the systems of versions control, etc.

- **Production team**: for the summit and preparative meetings beforehand, a type of production secretary.

- **Investigation team**: The event needs structured and quality information about diverse aspects such as the number of cognitive works in Ecuador or the cost of administration software licenses. That is why it would be convenient to count on an investigative team that will manage the necessary and resultant knowledge of the foundational documents production processes.

- **Communication and documentation team**: In charge of national and international diffusion, in the press and television as well as well as within the network, impact monitoring, dossier creation, process documentation, etc.

- **Area coordinators**: It is very important that each area have one or various coordinators that can be within the editing network and that will actively coordinate with the integration team.

- **Translation team**: This team will be in charge of doing the English, Quichua, and Spanish translations in order to keep the web and documents up-to-date. The official version will be in Spanish, while the Quichua and English will be versions of this document. The contributions in English or Quichua will first be translated to Spanish in order to be accepted or not within the collaborative production and investigation system. This requires a rapid translation team.

We want to enable three types of coordinating team members on the basis of their dedication and type of contract:

1. Contracted full-time with 100% dedication. These people must be contracted directly from the first moment of incorporation until two months after the summit's end, when all material will be operatively integrated into the State's policies. Here we are going to need people with very different contract profiles, depending on their CV, the responsibility level of the position, and the abilities required for the task: we are speaking of contracts between $800 and $4000 a month.

2. A second group of members now have contracts as public servants: investigators in IAEN, social agents, NGOs, *prometeos*, legal teams, advisors, work teams in SENESCYT or other ministries, activists, etc. Their dedication to the process-summit will vary between 10 and 50% of their daily work, but this dedication and the functions they will fill have to be made clear through some sort of "contract" in which they take responsibility. They will always stay active in their coordination and production processes but there will be certain moments of more active work.

3. A third group is composed of actors that will not be able to stay in Quito permanently, but who want to come and participate for certain parts of the process (month-long visits before, during, or after the event) and that will participate via long-distance. Some of these people will require very specific contracts (maybe as consultants), others will have contracts as *prometeos* for one or two months, or they could perhaps find a way to work within their own organizations in order to maintain an active participation in the project without increasing costs for Ecuador.

Participatory Network

In all cases, we are always referring to a proportion of at least 2:1 local actors to foreigners:

- Institutions: assemblywomen and men, provosts, technical functionaries, etc.

- Academics and investigators

- Cyber-activists and hackers

- Community actors

- Economic and development agents: businesses, cooperatives, etc.

Editing and Revision Network

The participatory process must be actively coordinated by a series of "expert" editors that process and accept the modifications, but the exact format that this will take has yet to be determined. This team will be in large part composed of a selection of actors from the participant networks. The network needs to be formed soon in order for it to also function as a consultative team during the process.

Contract Plan

In the first two phases of gestation and incubation (from now until October 1) we urgently need several people who can been hired by contract or that now have posts as public servants and that are available in order to start working on the event, with daily meetings and continuing education. Afterwards, they will have to fill in the teams. We have divided the following positions between those that are urgent (can be applied to immediately) and important in the medium-term.

Urgent

- **1 Designer**: must be able to design corporate image and adapt it to the web, presentations, etc. Must have mixed background as corporate designer and web designer.

- **1 Web developer**: develop web with php, css, specialist in MediaWiki and Wordpress semantic web, multi-lingual and must be able to do data visualization.

- **1 Pre-production assistant**: in charge of hiring, management of calendars, contracts, various secretarial roles. Must be efficient, have medium-high English level and knowledge about contracts and management within public institutions. (Could be the same person that fills coordination assistant position if meets requirements; see below.)

- **1 Communication Coordinator**: This person must coordinate with communication team that will develop throughout the project process. Must have advanced communication skills in Spanish as well as English, with good management of social media, to be able to handle foreign social networks like Reddit, and be familiar with cyber-space communities (Boing-Boing, Wikipedia Foundation, EFF, Creative Commons, etc.).

- **Translation team**: outside team capable of performing specific, short-term translations (much later a permanent translation team will be formed, above all for the summit).

Important but not urgent

- **1 Coordination Assistant**: very well trained, some political experience, some production experience, some experience in facilitation and coordination of large events. Must have advanced knowledge in ICTs, social networks, etc., and should have some experience in work environments based on GNU/Linus: MediaWiki, Wordpress, OpenOffice, Zimbra, etc.

- **1 Systems Administrator**: expert in GNU/Linus servers (preferably Debian/Ubuntu) with experience in NGINX, MySQL, postfix, etc.

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