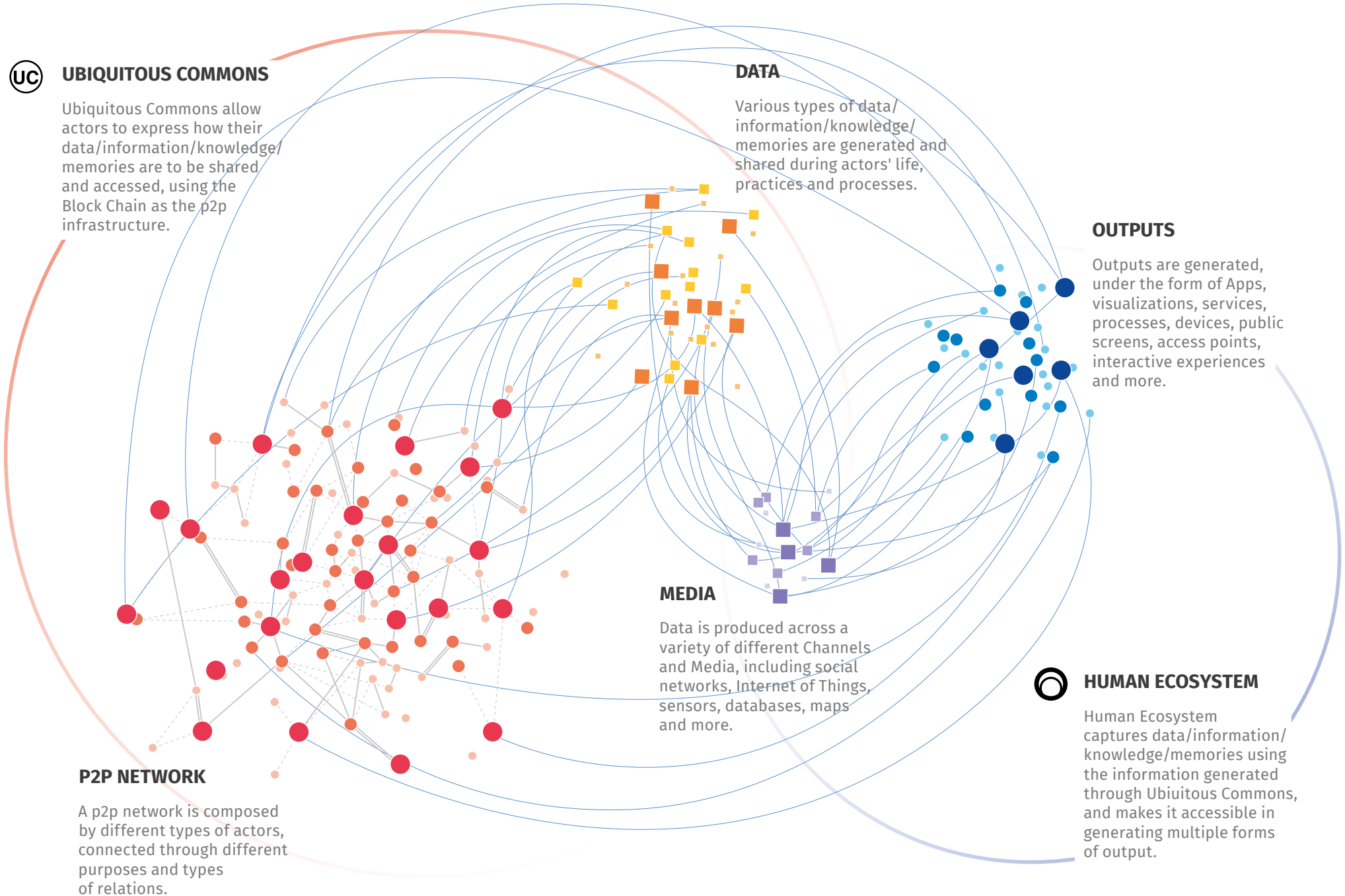
Iperconnessioni Rurali

A project by

rural hub

UC



UBIQUITOUS COMMONS

Ubiquitous Commons allow actors to express how their data/information/knowledge/ memories are to be shared and accessed, using the Block Chain as the p2p infrastructure.

DATA

Various types of data/ information/knowledge/ memories are generated and shared during actors' life, practices and processes.

OUTPUTS

Outputs are generated, under the form of Apps, visualizations, services, processes, devices, public screens, access points, interactive experiences and more.

MEDIA

Data is produced across a variety of different Channels and Media, including social networks, Internet of Things, sensors, databases, maps and more.

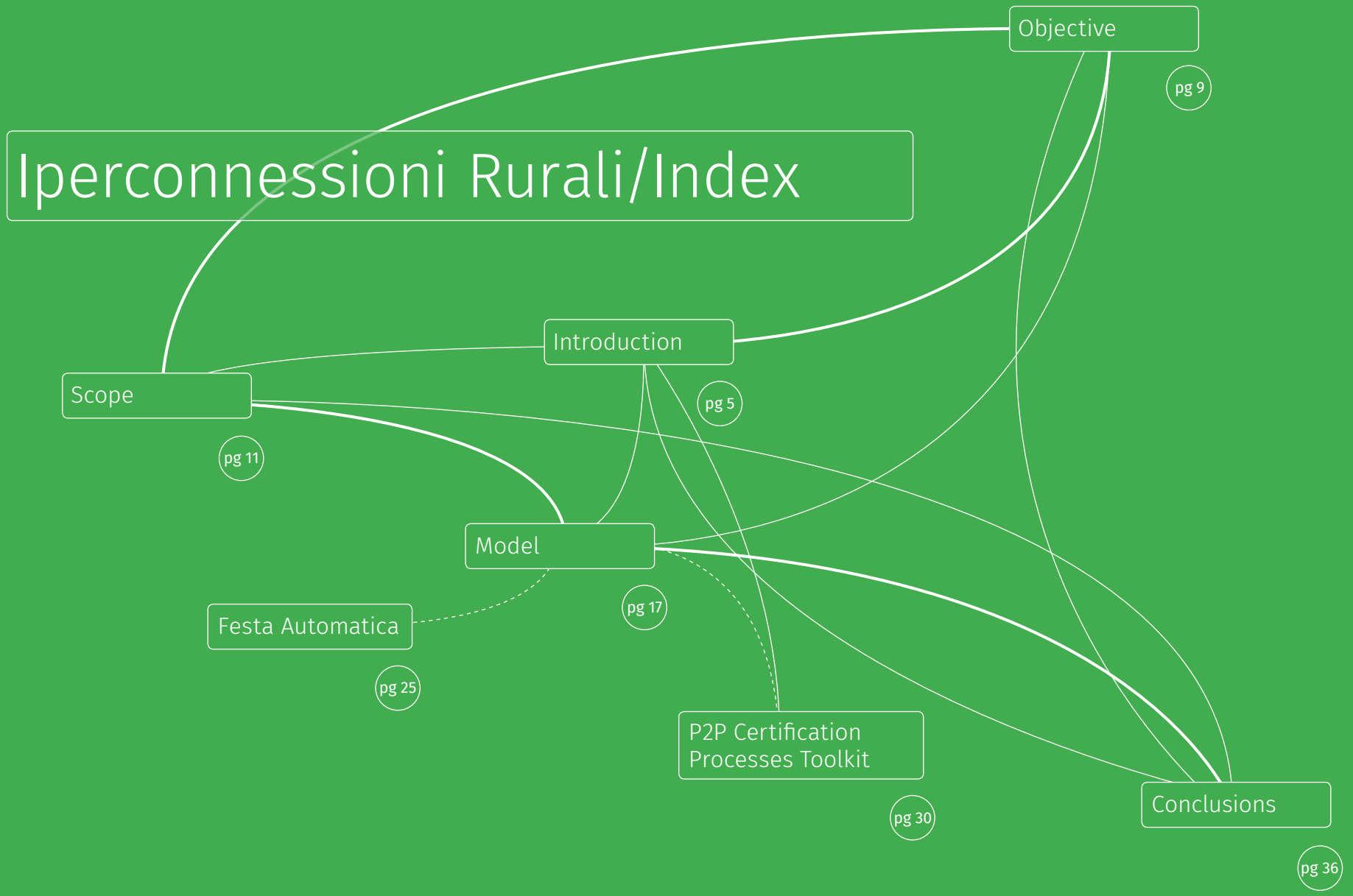
HUMAN ECOSYSTEM

Human Ecosystem captures data/information/ knowledge/memories using the information generated through Ubiuitous Commons, and makes it accessible in generating multiple forms of output.

P2P NETWORK

A p2p network is composed by different types of actors, connected through different purposes and types of relations.

Iperconnessioni Rurali/Index



Jilles Clément ▶ *Le jardin en mouvement*

"What do we fear, exactly? Or, rather: what do we still need to be afraid of? In the shadows of the dense undergrowth or in the mud of the marshes, there is a foreboding that the unconscious tends to chase away. What is tidy and clear is reassuring. Everything else is populated by noxious elves... The end of this century sees us stumbling on simplistic schemes that Romanticism has made lumbering. To change gardens, we have to change the legend: we should have the means."

01/Introduction

The mediterranean rural areas represent an ideal prototype of the most interesting forms of Innovation. We all aspire to something similar.

Rich relational environments; spontaneous mutual care and solidarity; healthy lifestyles; good food; a slower scanning of time allowing thoughts, reflections, relations, and the blast of non-linearity; the encircling presence of a natural environment; respect and consciousness of nature and knowledge of both the world and its plant and animal inhabitants; how to produce (autonomously, sustainably and ecologically) energy, food, water, shelter; hail memory; the opportunities that come from sharing all this; biodiversity and its importance; the perception of the ecosystem as a dynamic phenomenon, networked and emergent, rather than static and taken for granted; the understanding of seasons, the passing of time, the proper rhythm in doing anything; some lack of rush and the true joy of expectation; the value of relations and well-being over money and market.

Rural areas are about all of these phenomena.

In rural areas the idea of the Commons takes places on different levels: material and immaterial.

On a material level, it is matter of trees, plants, soil, air, mountains, rivers, streams, springs, fields and pastures, woods.

On an immaterial level, it is about knowledge, time, collaboration, networks, recipes, processes, procedures, respect, reputation, trust and cultures.

All of these are resources, and the Commons are more than just resources.
They are about the *high quality relational environments* that are needed to come together and make sure that these resources are well managed: collectively, collaboratively, as by a participatory and pro-active way: in ways in which these resources will not only last, but also prosper and grow, together with the community[1].
The Commons are about a mutual and sincere commitment and sense of responsibility toward the ecosystem of both human beings and nature; about scope and extent that this incredibly complex network (the ecosystem) represents, through its life.

1

Ostrom, Elinor (1990).
▶ *Governing the commons: the evolution of institutions for collective action.*
Cambridge New York: Cambridge University Press.

Too often the Commons are mistaken with the resources. Whether we speak about material or immaterial commons, too often we all speak about "things", being them rivers, air or data.

Too seldom we focus on the relational environment that is needed for the commons to rise.

When **Rural Hub** and **Ubiquitous Commons** met, some magic happened: they were talking about the same thing.

02/Objective

The objective of this publication is to describe in synthesis a *transition scenario* in which appropriate technologies are used to enact *commons-based, peer-to-peer* organizational and operational models which are usable at *local* and *trans-local* levels, to the mutual benefit of communities and of networks of human beings and organizations.

These models can be used in relation to immaterial goods (such as data, information, knowledge, memories, networks and processes), but can also be applied to the creation of positive outcomes impacting material goods and processes.

The models are designed keeping in mind a local and trans-local approach, firstly, but they can also be used to describe further transitional scenarios in which wide impacts can be achieved to the extent of the global society, by progressively shifting towards adaptive, dynamic governance models, to peer-to-peer ecosystems and to mutualistic, responsible and sustainable economic models.

03/Scope

The commons are composed by a Common Pool Resource (CPR) and by a High Quality Relational Environment (HQRE)[2].

The CPR can be material or immaterial, scarce or abundant, physical or digital.
The HQRE represents the network of relations contributing and participating to the self-management of the commons.
The commons do follow a regime that figures out an alternative to the management of public properties, communal owned resources and private goods. They are owned by *no-one* and are managed by communities, in dynamic or adaptive, flowing, emergent ways.
The existence (and sustainability) of the commons depends on the existence of the HQRE, which all evidence shows as being the only thing allowing to avoid the Tragedy of the Commons[3] (and the emergence of the Comedy of the Commons[4]).

Ideally, the commons emerge in local communities, facilitated by a CPR whose boundaries are well defined, sustained by a relational environment (allowing to self-organize dynamically

2

Ibidem.

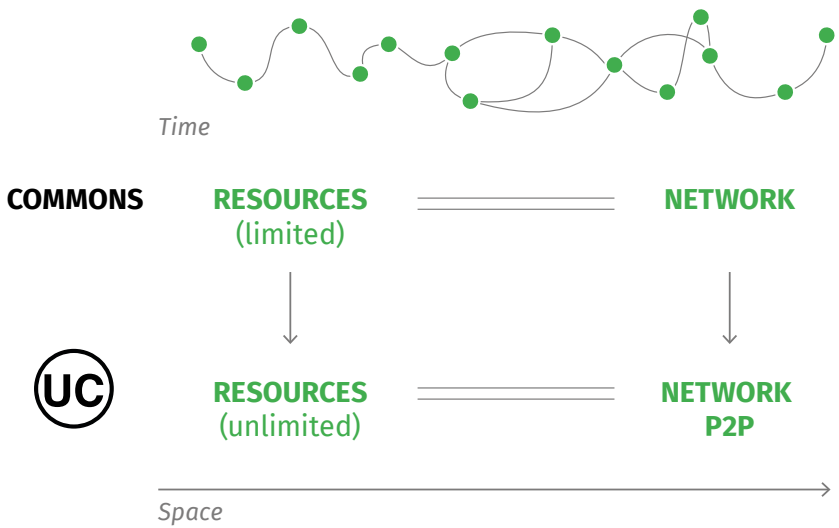
3

Hardin, Garrett (1968).
▶ "The Tragedy of the Commons". *Science* Vol. 162 no. 3859, pp. 1243-1248 . The full article is available here.

4

Rose, Carol M. (1986).
▶ "The Comedy of the Commons: Commerce, Custom, and Inherently Public Property". *Faculty Scholarship Series*: Paper 1828. Retrieved December 28, 2011. The full article is available here.

and emergently adaptive forms of governance, as well as cheap and easily accessible forms of conflict resolution), supported by the effective supervising possibilities of monitors who are part of (or accountable to) the commoners, and with minimal interference of the institutional actors.
In the global society it is easy to see how very few (or none) of these structures actually take place.
Interesting opportunities arise at local and trans-local levels, with the possibilities to use technology in order to generate peer-to-peer networks, which might eventually be able to create these pre-requisites. Current Information and Communication Technologies (ICT) can technically enable these processes.



The transition described is synthetically shown in the image beside.

The transition creates a parallel between the current (and historical) commons and the **Ubiquitous Commons** (UC)[5].
If the traditional commons depict, as it has been said, the strong relation between the material CPR and the HQRE, the UC highlights the strong relation between the immaterial CPR and the HQRE created by establishing a peer-to-peer network (P2P).

It is a double transition:

- → from the scarce, material resources to the abundant, immaterial resources;

- → from the physical relational environment, to a relational environment that can be either physical, digital or hybrid, and which is expressed through a P2P network enacted through person-to-person relationships, social networks, Internet of Things (IoT), sensors, network connected devices, databases and processes, using the Ubiquitous Commons and keeping the quality standards.

It is here, in the P2P network, that the purpose of social conscience, imaginary and sense of responsibility – which are typical of the HQRE – are enacted, and here is the place where they form the feedback loop to P2P network itself, constituting a second-order cybernetic system[6].

It is here that the identities can be expressed, in multiple forms (anonymous, individual, collective, nomadic, temporary).

It is here that all of these identities can express their will and desires.

It is here that access and experience do start.

6

Second-order cybernetics

▶ From Wikipedia: "Second-order cybernetics, also known as the cybernetics of cybernetics, investigates the construction of models of cybernetic systems. It investigates cybernetics with awareness that the investigators are part of the system, and of the importance of self-referentiality, self-organizing, the subject–object problem, etc. Investigators of a system can never see how it works by standing outside it because the investigators are always engaged cybernetically with the system being observed; that is, when investigators observe a system, they affect and are affected by it. […]". See more here.

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FOCUS

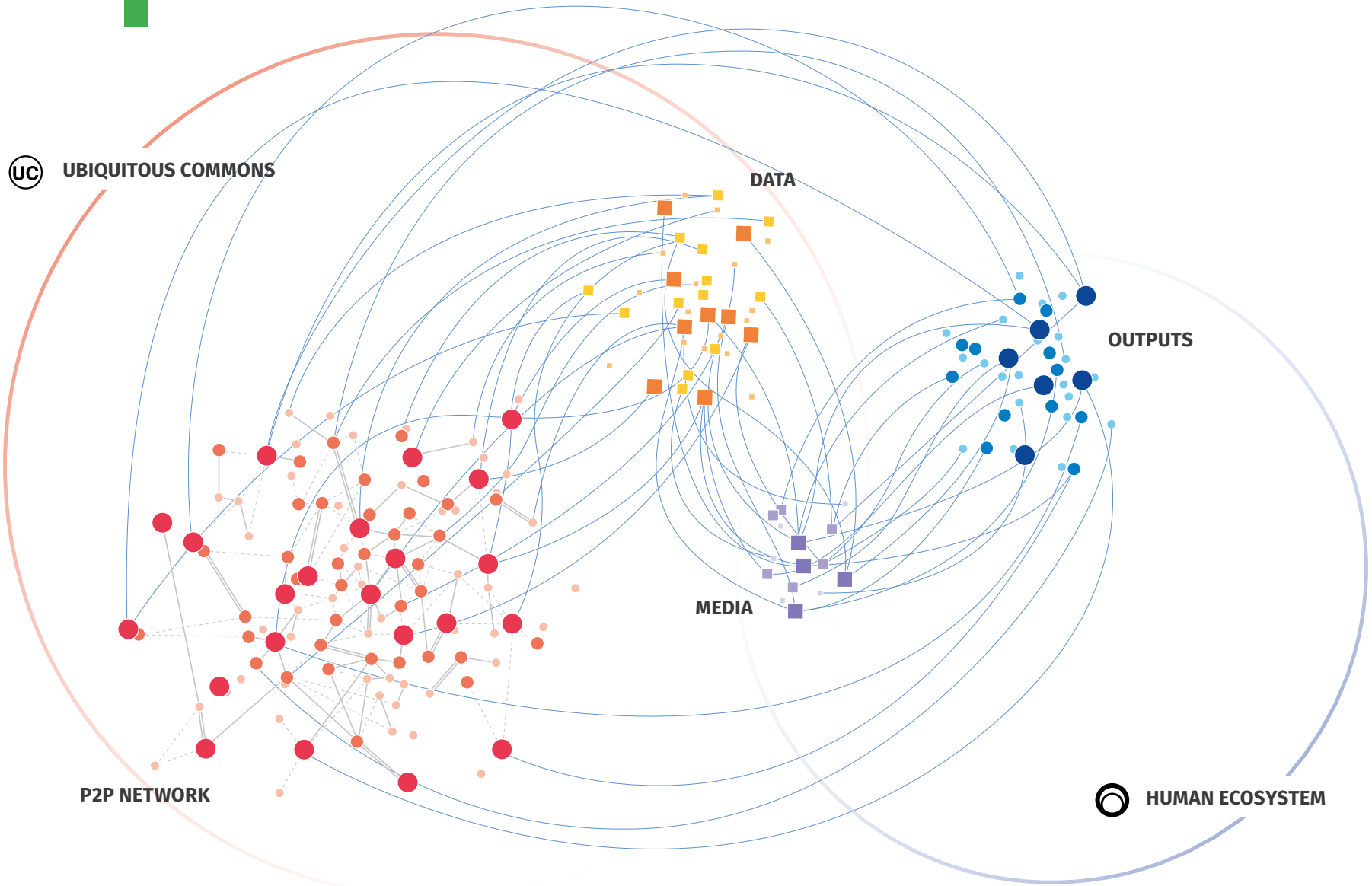
Ubiquitous Commons

▸ Ubiquitous Commons is a shared global research effort dedicated to understanding the transformation of data, information and knowledge in the age of ubiquitous technologies and networks. The project aims to create a legal, technological and philosophical toolkit transforming the ownership of data into a relational concept, in which individuals and communities can actively cooperate in the attribution/definition of rights/duties of access to the data through digital interactions (from social networks, to apps, sensors, wearable technologies, devices, Internet of Things, CCTV cameras, security and surveillance schemes, algorithms and processes of various types and so on, consciously or unconsciously). The first prototype of the technological toolkit is dedicated to social networks and web/online services. It is a browser plugin combining encryption, p2p networks (the Block Chain, the p2p network behind BitCoin, the most popular digital currency) and a mechanism for "user generated license". Once installed, the plugin intercepts the content we are to publish, encrypts it, and allows you to generate and apply the desired license and, only then, sends it to the service.

Both the decryption keys and the licenses are distributed on Block Chain, meaning that people can decide by whom and under what conditions the content may be used. The result is a cooperative, relational and totally p2p mechanism in which individuals, communities, institutions, companies and organizations - beyond the unspoken "*law of Tos*" (Terms of Services) established by the service providers - can have their say about how their data are used, creating new types of licenses: civic, for research, commercial, for a fee, or entirely personal, based on an open, interoperable and inclusive protocol.
More info at: www.ubiquitouscommons.org

04/Model

n the model are shown a series of *actors* and *types of actors* form a P2P network.



These actors can take the form of one of the possible UC ***types of identities***:

- → *anonymous*: a participant to the P2P network whose identity may be undisclosed for particular reasons;
- → *individual*: a participant whose identity is associated to the one of a certain, single, legal person (e.g.: John Smith, or ABC Ltd.);
- → *collective*: a participant whose identity is associated to a concept describing a set of subjects (e.g.: farmers, citizens of town X, the people associated to the Y association) or a goal (e.g.: civic action, ethical scientific research, ancient seeds cultivation);
- → *nomadic*: a participant whose identity is associated to a shifting set of legal persons, one at the time, for particular reasons (e.g.: first it is John Smith, then John Smith passes it on to Mark White, then Mark White passes it on to ABC ltd, etc.);
- → *temporary*: a participant (of the anonymous, individual, collective, or nomadic types) whose identity is limited in time, for particular reasons (e.g.: for an event, for a project).

Each identity corresponds to a ***public/private crypto-key***[7]:

→ the members of the identity have the private key (whether it is the single member of the individual identity, or the multiple members of a collective identity);

→ it is up to the *responsibility* of the members of a collective identity to keep, share or manage their collective private key.

These subjects enter the P2P network through a ***trust mechanism*** creating that sense of responsibility that fuels the entire relational environment:

→ the trust mechanism can be enacted in multiple ways, for example by direct inclusion, through reputation mechanisms, through *"citizenship"* mechanisms (e.g.: each new citizen receives the *"private crypto-key to the city"*, thus becoming effective part of the collective identity of the citizens), and more;

→ these actors are related through a set of ***relationships*** that express, for the ***scope*** of the P2P network, one or more purposes or goals (e.g.: collaboration, research, business, consumption); goals can evolve and change over ***time***;

7

Public-key cryptography

▶ From Wikipedia: "Public-key cryptography, also known as asymmetric cryptography, is a class of cryptographic protocols based on algorithms that require two separate keys, one of which is secret (or private) and one of which is public. Although different, the two parts of this key pair are mathematically linked. [...]". See more here.

- these actors generate or access a variety of ***types of immaterial products***: data, information, knowledge, networks, processes, recipes, insights, wisdom;
    - these immaterial products can be produced/ expressed through a *variety of means* and media, including social networks, databases, transactions, sensors, IoT, network connected devices, smartphones, biometrics, and more;
- these types of immaterial products, when produced, are ***shared on UC*** together with one or more ***"relation"***, which also indicates a scope and a purpose (for example, I could share my data of *type X* with individual *identity Y*, with the collective identity "citizens of my city" or "Innovative Farmers X", with a temporary identity for a certain event, etc.);
    - using the UC mechanisms, the actors indicated would be the only ones to be able to access the information;
    - if any improper use was made, it would be up to the quality of the relational environment to handle the situation, and to solve the conflict;

→ this is one of the parts of the model where the HRQE becomes evident and needed, highlighting the dependence of any commons-based model on it;

→ so, immaterial products are shared through the ***Block Chain***[8] and *self-governed* through the P2P network;

→ immaterial products become accessible and usable, in this way, for several scopes and relations, and can be harvested (in real-time or offline, as needed) through the ***Human Ecosystems - HE***[9] (for example, the mayor of a city could use HE to fetch through UC "all of the civic relevant messages shared on social networks by the members of *citizens of city X* collective identity, shared for this purpose", without having to pay social network providers and suffer their limitations, and reclaiming the data/information which was generated for public/civic purposes);

→ all of these immaterial products therefore, can be used to ***create*** Apps, visualizations, maps, services, gadgets, artworks, designs, games, education processes, researches, public screens or anything respecting the expressed purpose;

→ on the Block Chain every transaction would be logged,

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Bloch Chain

▶ From Wikipedia: "The Block Chain is a public ledger that records bitcoin transactions. A novel solution accomplishes this without any trusted central authority: maintenance of the Block Chain is performed by a network of communicating nodes running bitcoin software. Transactions of the form "payer X sends Y bitcoins to payee Z" are broadcast to this network using readily available software applications. Network nodes can validate transactions, add them to their copy of the ledger, and then broadcast these ledger additions to other nodes. The Block Chain is a distributed database; in order to independently verify the chain of ownership of any and every bitcoin (amount), each network node stores↓

so that it could become fairly easy to track down any improper use of it;

→ the transactions can also have validity as micro contracts, since they are certified and encrypted through strong crypto-keys;

→ since the transactions live on the Block Chain, which is also the P2P infrastructure meant to handle *Bitcoin* transactions and providing the *possibility for paid transactions*, the whole system would be fairly easy and direct (e.g.: "free for collective identity *citizens of city X*, paid 0.005 bitcoins for all the rest.");

its own copy of the Block Chain. Approximately six times per hour, a new group of accepted transactions, a block, is created, added to the Block Chain, and quickly published to all nodes. […]". More information on Bitcoins here.

This model can be instanced in multiple ways. It can be specified and designed for:

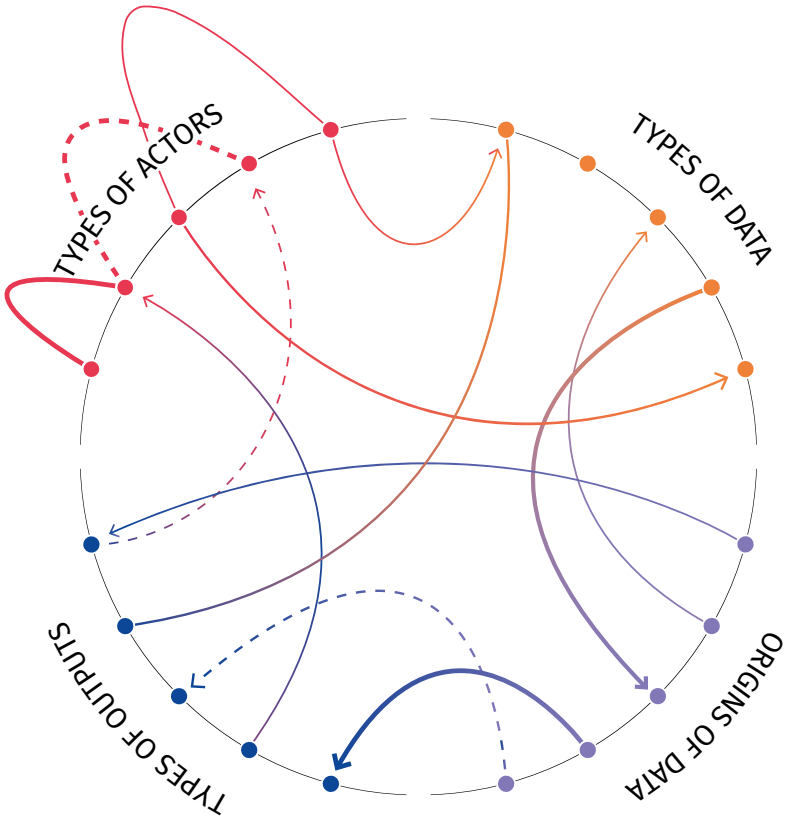
→ a series of types of actors/participants of the P2P network

→ their relations and purposes

→ the types of immaterial products they produce/experience, and where they are found (social networks, databases, IoT, Apps, devices, networks, processes..);

→ the logics (relations + purposes + flows) according to which these immaterial products are shared in the commons;

→ the description of the outputs of the process, and how they are used (an App? a service? a visualization? a process? an action? an event? ...).



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▶ ruralhub.it

Below we show some the first Use Case Scenarios we sketched during the “Iperconnessioni Rurali” workshop[10] in Calvanico, in April 2015, and that we will implement soon as the first usage **example** of the model.

Festa Automatica

Introduction

The "*Festa Automatica*" (the "Automatic Feast") is a playful application dealing with serious issues: the oversupply, overproduction and over-consumption of food; recycling; the creation of an inclusive, joyful, responsible relational ecosystem; re-distribution of wealth; the softening of divides.

In our society it is not uncommon for a lot of food to go wasted. People purchase more than they can consume despite the expiry dates. Stores buy more than they will sell. Dynamic lifestyles. These are just some of the reasons why a lot of the food in our cities goes to waste every day.

A research led by Coldiretti[11] has found out that the average Italian citizen throws in the trash an average of 76Kg of food every year. FAO declares that food gone wasted every year amounts to more than 550 Billion euros.

From another point of view, many people and families have a hard time obtaining healthy food. The financial crisis, the transformations of the job market, the disadvantaged conditions of migrants and the generalized recession are among the major causes.

Furthermore, cooking and food in general are among the most frequent occasions for social interaction. From the trends in food culture, to the practices

connected to generating massive amounts of food-related social media activity, to the appearance on the markets of smart refrigerators, food purchase and delivery applications, food information and recipes services and all the way to the dining table, cooking and restaurants are becoming among the most well-connected and smart places in our daily lives.

Concept

Festa Automatica is dedicated to rural villages, hamlets, boroughs, but can also be conveniently adopted by condominiums, streets, and neighborhoods.

In a *Festa Automatica*, people should record their food excess (because they have purchased too much, they have food on expiry, they did not manage to eat it all...) using one of the multiple existing ways (describing it in plain natural text on social networks; using an App on their smartphone; configuring their smart-refrigerator; ...).

All this information should be shared using Ubiquitous Commons (for example through the UC plugin for social networks, or through a UC enabled App, or through an UC enabled smart fridge), and harvested in real-time using Human Ecosystems.
For each sharing action within the territory a gauge would go up, showing the augmentation of the available food in excess.
When a fair threshold is passed, the Festa Automatica should start.
A doodle would be published and all the participants would be automatically notified. A collaborative decision-making process would start, to decide when to hold the Automatic Feast (also taking in consideration food's expiry dates) and where.
If enough people agree: the party is set! All would convene to the agreed location in the public space, at the agreed time, bringing chairs, tables, cutlery, napkins and, of course, the food, and the feast would begin.
If not enough people agree: the food always remains available for sharing, so that people can claim it.

The *Festa Automatica* could also be used in a more active fashion: if ever some citizens or an organization decide to organize an event, they can use Festa Automatica to create a participatory event involving food. They should establish a threshold ("we need X food!") and when the X food threshold is reached, the event could take place.
The concept addresses all of the issues raised in the introduction.
Of specific notice is the issue of inclusion, together with the possibility for a temporary use of public space in order to eat, be together, collaborate and share.

When the *Festa Automatica* happens, everyone is just identical: everyone brings what he/she can/has, and everyone is invited, with no exclusion or perceivable difference.
It would be a ***neo-ritual*** for social ***aggregation*** and cohesion.

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▶ agi.it

9

FOCUS

Human Ecosystem

▸ HE is a global effort to involve citizens and institutions in the re-appropriation of new forms of public space. The system captures public real-time conversations exchanged on social network in entire cities, analyzes and displays this data under the form of engaging interactive visualizations, generating a new source of real-rhymes-open Open Data (a Data Common), accessible by administrators, citizens, companies, startups, designers, artists, hackers to create new forms of p2p policy, cooperation, participation, services, products, artwork and more. The project is materialized in the space of the city on two levels:

→ a permanent installation, the “Museum of the City Real Time: an immersive experience where anyone can access and interact with the informational geographies and relational ecosystem of cities in its constant evolution, as is emerge in real time on social networks interaction”;

→ a level of service, under the form of Lab, where citizens, designers, startups, researchers, public administrators, associations and other profiles can learn to use the system and the data for their own purposes.

The three components (the Common Data, Real Time Museum of the City, the Lab) transform Human Ecosystems in a shared tool to enable the emergence of Smart Community.
More info on: human-ecosystems.com

Types of users, relations and purposes

Citizens

- wishing to avoid food waste
- wishing to have public socialization moments
- wishing to be active, included part of the community

Organizations

- wishing to organize participatory events
- wishing to do research and investigation on food waste and consumption

Public administration

- wishing to create lively, positive, inclusive rituals for social aggregation and cohesion in the territory
- wishing to enact creative and positive usage patterns for public space

Stores, supermarkets

- wishing to positively contribute to the community they find themselves in
- wishing to positively convey their image and responsibility
- wishing to decrease food waste in their businesses

Types of data/sources

Food excess (type, expiry)

- social networks
- App
- smart kitchen
- database (for example for stores)

Desire/availability for Festa Automatica

- social networks
- App

Desire/availability for food

- App
- social network
- database (for example for public administration and stores, who can assign food to disadvantaged families in the community)

Possible outputs/benefits

- festa Automatica App
- public Visualization of the Available Food Level
- research on food consumption in the territory

P2P Certification Processes Toolkit

Introduction

The opacity of both production and distribution in the food system is a crucial issue that persists despite the proliferation of conventional certification processes. According to the "Manifesto for Rural Social Innovation", this phenomenon is strictly connected to standardization and globalization in food production, which *"decreased almost to zero the food value, using it as a mere ploy for the immaterial flows generated by branding, finance and logistics"*.

A recent survey of the German weekly news magazine "Der Spiegel", entitled *"Betraying the Organic"*[12], shows how the increasing demand for organic products does not match a clear mapping of certified farmers who really respect animals, environment and health. Even organic food, therefore, *"has taken the road of canonicalization [...] because the market requires a certain volume of production, and this can be achieved only by discarding the values of the organic standards, born as an alternative model to the agri-food industry; the one considering land and animals only as easily exploitable production means."*[13]

In those recent years, many participatory certification models (Participatory Guarantee Systems or PGS[14]) have been launched, to claim back the center of the system and restore the product value. These methods involve the active participation of both consumers and producers, in order to ensure a shared and constantly monitored quality, as a real alternative

to the official certifications, which happen to be inadequate more than often. In these models, the participated relationship among the users and the reputation shall define the value of the offer.

The limitations of this approach are still linked to the local scale of the certification system, which leaves out many potential motivated actors.

Let's try to imagine, then, a hyper local participatory certification model, able to benefit of the lasting relationships that the users (individuals or communities, companies, associations, organizations, etc.) build through and within the infosphere.

In this scenario, the collected data could be more consistent and available for a significantly larger sharing process (in space and time), forming an ecosystem in constant evolution. Moreover, in an increasingly hyper connected society, the information sources concerning production and distribution processes would be progressively larger, ponderable and comparable (measuring social, environmental, and economic impacts and involving an increasingly number of actors). Furthermore, the active participation of a broad audience would constitute a tangible trend as well as an anthropological transformation - turning now into a cultural attitude: in this frame, relational approaches are the very base of any economic model to come.

Concept

The *Toolkit for P2P Certification Processes* is an open environment allowing the multiple actors of the agri-food system (individual and collectives ones) to create their own certifications, by sharing data, information and knowledge through the Ubiquitous Commons scheme, and explaining how their data could be used.

The Toolkit is composed by

→ a set of open source software (APIs) allowing to create apps and harvests; analyze and integrate

data from social network, sensors, IoT, existing database (etc..);

→ a set of templates (including basic licensing models and possible/desirable typologies of wanted data, information and knowledge to share);

→ a set of visualizations (made available through the Human Ecosystems infrastructure) showing data, highlighting relations among people and confirming the level of reputation and trust.

We think of a community of rural innovators: they could create and promote a specific certification expressing their vision on innovation, documenting specific data and practices, in order to share them. This would entail an extension of the community through the means of visibility in a translocal ecosystem.

At the same time, a different level of access to the data could be chosen for the different subjects. It could be free for farmers and rural innovators as well as for any subject involved in research or other cultural purposes. At the same time it could be made accessible with fee to other large operators, for instance the ones using it for business purposes (in order to deal with the current exploitation of crowdsourced data and new micro-economies). Universities, researchers and public institutions could have access to a new source (constantly updated) to promote research, or, in the case they were institutions - orient policies. People could actively participate by supporting the certification or sharing their personal experience, which would be included and visible in this coherent system; banks and investors could use it to choose/orient their investments or create/promote new ones.

The *P2P Certification Processes Toolkit* has the aim to coexist with standard certification patterns. It is a positive, constructive approach allowing multiple actors and multiple certifications to exist in an open, transparent environment acknowledging mutual and cooperative relations as the most valuable resource.

Types of users, relations and purposes

Innovators (farmers)

- wishing to promote their values
- wishing to exchange/share information about different production practices
- wishing to diffuse new/unconventional practices, validated by shared responsibility models
- wishing to be able to measure the variables, parameters and processes which constitute their innovativeness, sustainability, quality, reputation (and, thus, to expose these measurements, creating value), in a controllable way
- interested in discovering potential collaboration patterns

Non-conventional/informal network (eg.: Genuino Clandestino[15] etc..)

- wishing to extend their relationships beyond local boundaries
- wishing to activate communication campaigns
- wishing to extend/find new connections
- wishing to be able to measure the variables, parameters and processes which constitute their innovativeness, sustainability, quality, reputation (and, thus, to expose these measurements, creating value), in a controllable way
- discover potential collaboration patterns

Agri-food enterprises (manufacturers)

- wishing to share practices
- wishing to learn practices
- interested in finding new ways to make strategic decisions
- interested in communicate their choices to consumers
- wishing to be able to measure the variables, parameters and processes which constitute their innovativeness, sustainability, quality, reputation (and, thus, to expose these measurements, creating value), in a controllable way
- discover potential collaboration patterns

Food processing industries

- wishing to consciously choose their transferors
- wishing to tile participatory p2p certifications to conventional ones

Consultants (eg.: agronomists, etc.)

- wishing to stay updated and to gain knowledge and insights about the ecosystem
- wishing to have direct, complete information sources which can be assembled and aggregated to form new products/services/processes and, thus, into new markets for them
- interested in guiding business decisions

GDO/Horeca[16]

- wishing to guide purchases beyond financial values

Unions (eg.: Coldiretti, Confagricoltura...)

- wishing to support their associates
- wishing to influenciate public directives, legislations and guidelines

Universities/research centers

- wishing to share data and knowledge
- wishing to access data and knowledge sources
- wishing to design new potential collaboration and operation patterns, according to the results of their research

Institutions

- wishing to orient/promote their territorial, national, international health, well-being, food, agriculture policies etc.

Schools

- wishing to create/promote research and specialized training
- wishing to create/promote nutrition education programs, in particular linked to their cafeterias

Banks, investors

- wishing to promote new services
- wishing to monitor/invest in high quality, socially responsible, trusted projects/companies

Consumers (individual or associations)

- wishing to gain broader guarantees about agri-food production processes
- wishing to actively participate to production process
- wishing to actively support the production processes of which they share values and goals
- ...

Types of data/sources

Geodata

- organization databases
- sensors and sensing processes
- social networks

Information on plants variety (eg.: cultivar[17] etc...)

- crowdsourced through Apps for farmers, citizens, organizations...
- databases of organizations, research institutes, institutions (for example academic research, ICN[18], CINPC[19]...)

Comparative data on production/crop/mechanization, human resources, working methods

- app
- detection systems using the different production parameters
- social network, which could be used to crowdsource fact-checking processes on the data

Energy data

- sensors
- IoT (Internet of Things)

QdC - “Quaderno di Campagna” or “Orchard Notebook” (eg.: methods, timing, products for agriculture, pruning, treatments, diseases, cures...)

- app
- databases (for example from exiting QdC pilots[20])
- detection systems of the different production parameters
- social networks
- ...

Possible outputs/benefits

Toolkit to create p2p Certification for different actors

Public Visualizations on food production systems and its relational environment

Communication/activation campaigns to promote different certifications (their values and relational networks)

Research/Education

Planning for interventions/projects at local, EU, international level

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- scienzainrete.it

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- ibidem.

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- en.wikipedia.org

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- genuinoclandestino.noblogs.org

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Horeca

- From Wikipedia:

"Commercial term that refers to the sector of the hotel industry and businesses, is the acronyme of Hotellerie, Restaurant, Café".
See more here.

17

Cultivar

- From Wikipedia:

"Contraction of the English expression *cultivated variety*".
See more here.

18

ICN

- From Wikipedia:

"International Code of Nomenclature for algies, fungi and plants".
See more here.

19

CINPC1

- International Code of Nomenclature of Cultivated Plants.

20

- quadernodicampagna.imagelinenetwork.com

05/Conclusions

“Iperconnessioni Rurali” is the first attempt to apply the Ubiquitous Commons conceptual framework to rural contexts. We focused on creating accessible, usable, inclusive ways in which people, communities, organizations and institutions would be able to use this schemes and modalities in their daily lives and practices - by sharing knowledge, relations and processes in a P2P environment which might be respectful of their wills, desires and expectations.

We consider caring for the commons as an act of individual stewardship (long-term care for a given resource for the benefit of oneself and others, including the resource itself) and collective trusteeship. This is the very essence of being ‘whole’, in other words, the fundamental basis of interdisciplinary. This is one of the few ways we have to acknowledge our debt to the past generations, and to embody our link with the future generation. It shows that we believe in ourselves as an enduring civilization, not an economy.

As stated in the **Manifesto for the Rural Social Innovation**[21], *“the*

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emphasis is now being placed on the digital domain as it is an enabler of social innovation; To generate innovation each subject, whether economic or institutional, has to meet the needs of its own time and territory, thus representing an instance of change."

Nowadays we can conceive new types of rural economies oriented to **Societing**[22]. We can conceive a **Rural Social Innovation** that, by using tools and methodologies such as Network[23] and Digital Ethnography[24] and infrastructures such as the ones provided by Ubiquitous Commons and Human Ecosystems, is able to claim back the processes of the food systems, reorganizing them into a community framework. A frame that can build new models, finally capable of taking up the triple bottom line *"People - Planet - Profit"*, and supporting initiatives that might combine environmental requirements, economic sustainability and social responsibility.

Rural Social Innovation outlines today the possibility of a radical cultural change of perspective: from linear time (Chronos) we can shift to a dimension where time becomes a choice (Kairos[25]). In this movement of the re-appropriation of time, *#smartrurality* becomes a critical category to rethink the present, lead our

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Societing

▶ Societing is the attempt to support the socialization process of the users, through a new philosophy that recognizes the participation and enables mechanisms of redistribution of values.

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Network Ethnography

▶ Network Ethnography is the process of using ethnographic field methods while studying communication in network communities. Active or passive observation, extended immersion, or in-depth interviews are conducted at multiple sites or with interesting subgroups that have been purposively sampled. The researcher can choose a perceived community and↓

memories of the past in the contemporary and design a new common: an ubiquitous hyper local high quality ecosystem where the relations of physical proximity can coexist with new forms of sharing and social responsibility, performed through trans local, peer to peer, networked relational environments.

select the important nodes in the social network as field sites. Network ethnography allows the researcher to strategize over multiple points of entry into a community, avoiding the less manageable cascading or snowball sampling methods of traditional ethnography.

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Digital Ethnography

▶ Digital Ethnography refers to a number of related online research methods that adapt ethnographic methods to the study of the communities and cultures created through computer-mediated social interaction.

FOCUS

Chronos/Kairos

▸ In Greek mythology, *Chronos* (Greek: Χρόνος) is the personification of Time in pre-Socratic philosophy and later literature. Cronus represented the destructive ravages of time which consumed all things, a concept that was definitely illustrated when the Titan king devoured the Olympian gods — the past consuming the future, the older generation suppressing the next generation. *Kairos* (Greek: Καιρός) was the personification of opportunity, luck and favorable moments. Kairos is the due measure that achieves the aim. This god brings about what is convenient, fit, and comes in the right moment. Sometimes it could be the critical or dangerous moment, but more often it represents the advantageous, or favorable occasion. Hence, what is opportune, or “Opportunity”. It is interesting how in ancient Greek, “chronos” and “kairos” were two words both used to refer to time. While the former refers to chronological or sequential time, the latter signifies a time lapse, a moment of indeterminate time in which everything happens. What is happening when referring to kairos depends on who is using the word. While chronos is quantitative, kairos has a qualitative, permanent nature.

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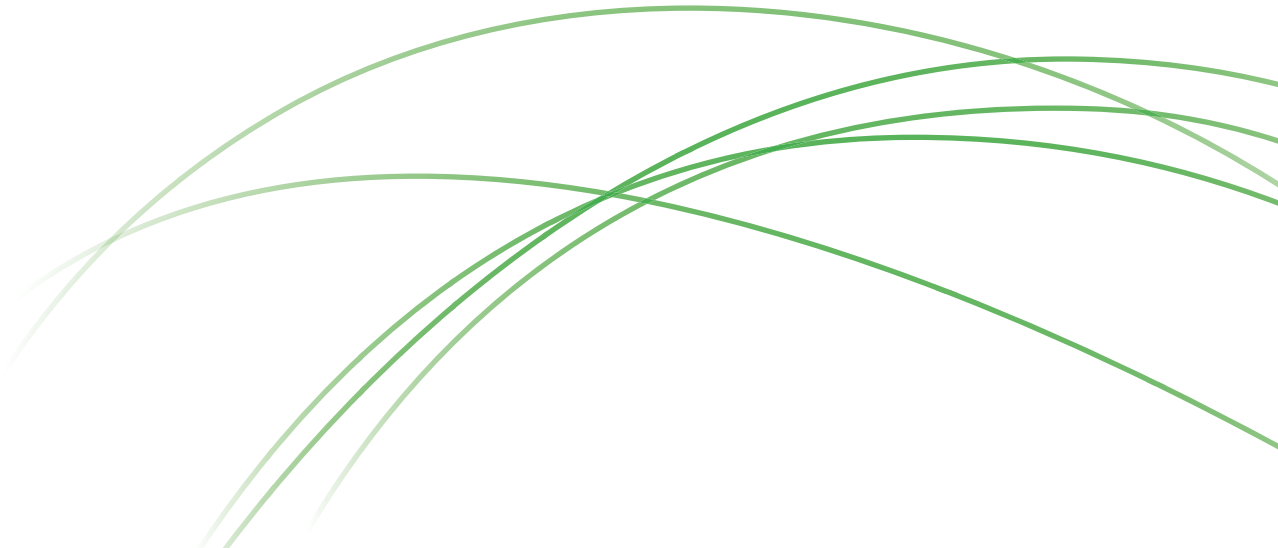

Colophon

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