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An integrated approach to planning for sustainable land and town as commons

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Abstract

The starting point consists in considering *city as common good as a whole* characterized by a number of physical and social local resources that are not reproducible ones. Remembering that the mission of the modern town planners, from the Athena Chart 1931, is the wellbeing of the inhabitants.

Renewable resources and interactive communications may help do design a better urbanization processes. But all that must be done having as goal to construct local communities and not only to reinforce individual power. As the European Union says for/in Horizon 2020 the scope is to build "Smart Cities" that are referred not only to technological aspects but they also constituted by an inclusive, social sustainable environment.

Flows of energy and flows of communications characterize the contemporaneous city: the immaterial city (Aragona, 1993, 2000). Town planners have to face with this *phenomenon* but it is not easy because they are for the most, especially in some nation (e.g. Italy), not educated to do that. It requires to manage the networks of services - not visible service and product (some years ago called often "value added service") - beside the physical, built, town that means its spatial, economical structure... and the functional one that is changing (partly or totally) because the reasons before said. This philosophy regards also the energy and all the natural elements (water, wind, soil) contributing to increase the quality life. It seems that, for the most, in many countries town planners accept these changes without trying to address them. It seems that the countries where city as common good is less felt (e.g. many of the Mediterranean nations) these changes for bettering wellbeing and social sustainability are not caught or left to the "free market" alone... while *Sustainable Copenhagen* is one representative example of what can be done.

All that is very related to the accessibility of information of people, technicians, administrative employees, politicians. Important is the formation of a "cultured technology" for avoiding technocratic "solutions" (Del Nord, 1991). All that is a relevant chance because inhabitants become *citizens* i.e. *cum-cives* (Cacciari, 1991) of the *polis*: outcome of *the art of managing the city*.

Key words: Commons goods, Smart Sustainability, Equity

1. The smart city: finally a proposal for integrated planning

Perhaps the call by UE for project ideas for *Smart Cities and Communities* in the Axis II of the Program "Integrated actions for sustainable development and the development of the information society" and "Projects of 'social innovation'" in the context of Priority III (North-South initiatives osmosis) will urge our country to follow this path. Proposals must provide solutions to problems of urban and metropolitan through the set of technologies, applications, models of integration and inclusion. The *Smart Community* is the reference for the identification of areas of research and development trajectories. Must be understood in a broad sense with respect to the definition of urban agglomeration of medium and large size. It regards to the concept of urban sprawl and intelligent community, the aggregation of small towns or metropolitan systems, and environmental and social issues, such as mobility, security, education, energy conservation.

Horizon 2020 points out that in a changing world, the EU urges the formation of a *smart, sustainable and inclusive economy*. These three priorities - mutually reinforcing - should help the EU and the

Member States to achieve the highest levels of cohesion, employment, productivity and social interaction. Concretely, the Union has set five ambitious objectives - on employment, innovation, education, social inclusion and climate/energy - to be reached by 2020ⁱ.

In the plane of the EU innovation there are more than thirty points to achieve three goals: a) pursuit of scientific excellence and provide Europe with research infrastructures (including e-infrastructures) globally accessible to all researchers in Europe and elsewhere; b) supporting competitive sectors (micro-and nano-electronics, photonics, nanotechnology, advanced materials, biotechnology, advanced manufacturing and processing); c) improve the society focusing its efforts on: I. Health, demographic change and well-being; II. Food security, sustainable agriculture, marine and maritime research and the bio-economy, III. safe, clean, efficient, intelligent use of Energy; IV. integrated Eco-friendly transportation systems; V. Inclusive and secure society; VI Actions on climate, efficient use of resources and raw materials (http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=action-points).

When these three domains/goals they work together synergies are possible and the result is the intelligent city. That is the smart city i.e. the one that has a director capable of handling the areas mentioned above for: I) define and program the development, giving it goals and priorities; II) establish modality for communication and exchange; c) defining and making possible the production and access to services/products.

I wrote since 1987 (Aragona, Macchi in Proceedings of VIIth Conference of Regional Science) about the importance of the interactive information on territory. At that time in Italy it was not possible have individual interactive access to advanced services (Value Added Service, VAS). There were the so-called *Teleports*, advanced areas of interactive telecommunications often associated with significant real estate transactions (Aragona, Macchi, 1988). They offered to the city more competitive elements for the emerging modern globalization but also were often flags for large real estate speculationⁱⁱ. Spreading of computers and networks are creating the so-called Civic Networks, of which expression are now the website of municipal, provincial and regional levelⁱⁱⁱ.

Flows of energy and communications as well as now suggested by *Smart City Horizon 2020*, above mentioned, is a subject on which I began to write almost thirty years ago (Aragona, 1993)^{iv}. In the book *The virtual city* the goal was to illustrate the potential of innovations in *Urban transformations and new technologies*: this was the completion of the title of the text. This sense was understood in the following year by the new (1994) Mayor of Rome Rutelli when he has talked of the book at "Two minutes. A book", a program by the national important television Telemontecarlo (now it is La7 Tv).

2. Trials in the city and territory but few pervasive effects

In 1976 was passed the first law - Law no. 373 - to save energy and there were the first projects with the icon "Sun and Habitat" (*Group solar architecture and engineering*, Naples, Italy, 1979). The control is at building scale and it does not go beyond the narrow philosophy of saving energy. There were some propose to use passive solar, but its cost hinders the path and blocked the diffusion of this novelty. With the cogeneration begins to appear a new philosophy: to produce electricity and heat together, FIAT (the automobile Italian Company) offers the ToTeM (Total Energy Management). Some urban reality implemented this idea to scale municipal to heat the local communities: as the case of Brescia (very important town in north Italy) where the project was designed in 1972 and after six years comes into operation the first heating district ... and it still exists.

It seemed to be forming an awareness of the interdependence between the choice of location (climatic conditions of the place as sun, winds, precipitation), the level of well-being, and the morphology of the built environment, the presence of green components and water (rivers, seas, lakes), in short of the criteria that Vitruvius suggested in thinking the relation between spaces and constructions also how to build. It is acknowledging the signals from ancient works but not conceptually less relevant^v. After a while the effects of the oil shock have vanished, i.e. the vertical drop of the price of a barrel of oil, the economies and lobbies linked to the production and distribution of petrol, the absence of incentive

policies - unlike Germany that immediately after the first energy crisis of 1972 started the support of renewable energy while having an energy policy so strongly linked to nuclear energy (recently declared over) - the things written above, especially in Italy, disappear.

A few months after the entry into office of the new Board of the Capital chaired by the just quoted Francesco Rutelli, the *Pilot Project Teleworking Traffic Decongestion Program* (Tra.De.) has born as part of the Community Programme LIFE, sponsored by the Department of Mobility. The objective is to verify the possibility of changing the structure of demand for mobility in the Rome area for groped to reduce the quantity and change the "quality" - that is, the *manner* and *timing* for use of infrastructure - through the use of telework.

Purposes similar to the contemporary experiment "remote working in the Metropolitan Area of Bologna": reduce the demand for mobility and the congestion without resorting exclusively to the usual solutions of roads. Other objective of the experiment is to enhance the existing resources on the metropolitan territory with its craft villages and industrial areas - illustrated by researchers IRES CGIL (Battaglini, Oteri et al.) in the Conference "Take back the city: all in tram, all in tram". The experimentation it was a cooperation between the Traffic Sector Transportation and the City of Bologna and the Program "Digital Sites" by the DG XII, European Community.

Interestingly, the same approach was followed by the Authority Management Air Quality, South Coast in California (US). As part of a plan for the improvement of air quality in the metropolitan district of Los Angeles - containing more general measures for the revival of transport public in order to discourage the private primary source of congestion and pollution chemical, physical and acoustic - the Amendment 15 requires companies to not exceed a certain number of vehicles for n. of employees, with a fine of up to \$ 25,000. The more the working places move away from the central areas the more this ratio becomes less restrictive and, at the same time, it is suggested and encouraged the use of "tele-work" to be held in "telecottages" peripheral disseminated and/or by home: example of "strategic" use of the innovation by a local authority (Aragona, 2000)^{vi}.

Note that also in the social and health care services as part of the revision in 1999 as a result of Dlg. n.229/99 "Rationalization of the National (Italian) Health Service" promoted by the Ministry of Social Solidarity L. Turco with the First Prodi government - which connects the provision of services to the specific territory - in the new (then) Social Plan it is included the use home of telecare^{vii}.

Why in Italy these fruitful initiatives do not spread even though they were clear opportunities to improve the quality of life, the possibility of starting to propose processes of intelligent anthropization, environmentally and socially sustainable? As often happens in Italy^{viii}, our country had pre-seen since a long time what is now the European Union also recognized as a key element in the construction of territorial scenarios: that is to overcome the Information Communication Technology strictly sectorial approach that has characterized policies of the EU until recent years. But, as is anticipated in 1993 in the aforementioned *The Virtual City*, then further developed in *Urban environment and innovation. The global city between local identity and sustainability* (Ambiente urbano e innovazione. La città globale tra identità locale e sostenibilità; Aragona, 2000), innovation has a variety of obstacles when it should be implemented.

3. Recent emblematic experiences from which to learn

To have grant for disability the INPS (Italian National Institute for Social Security), following the recent allocation of responsibility before of the ASL (Local Health District), there is a medical examination. To this end it is necessary to start a telematics practice by the doctor of the person concerned by means of a model downloaded over the network. The doctor can request to his client always electronically all the information to start the practice and then send the completed form to INPS ever electronically. The model, however, must be presented "in person" to a Tax Assistance Centre, CAF, to be then

forwarded to the INPS. Theoretically, the applicant himself may send INPS but the procedure is literally incomprehensible.

But the real things are different.

First, the model must be brought physically to the CAF but why if it starts electronically? So you have to wait for the charge of these practice - always materially - and the receipt of the presentation of the model itself. And then wait ... Please note that the employee for this service can be as little as two hours to two days a week ... Wait what? That the INPS communicate the date of the visit! And how is this communication very important? .. with an SMS (or rather two repeated identical) to the phone that you left it.

But all that in the case of a visit to a health facility if it is requested to have a "visit home", that is in the house or in a center, rest home, etc.. the applicant that has often mobility difficulties - something quite likely applying for the recognition of disability - then you must go back to square one because the CAF cannot submit INPS the previous model, but it is necessary that the doctor will fill another, virtually identical above with the only difference that the word "D" rather than "C". Of course it is also necessary to restart the practice electronically, the doctor gives the new model to his client that must go back to the CAF... Easy is not it? ... except that the "D" model cannot be downloaded from the INPS website. Needless is the certificate from general practitioner attesting to the inability to ambulation of the patient. The INPS accepts only the "D" model. At this point, the applicant gives up and tries to go some way to the visit^x. And how brilliant closing of this use "italiancasareccio"^x of innovation in the communications, calling the Call Center INPS for asking how to do to download this fateful "D" model for "home visits", the answer is: "But the "D" model not needed, it is sufficient a medical certificate". It serves to nothing to point out that not only the CAF - employees volunteers (young people with precarious employment) that say they have seen a model "D" directly - does not accept this documentation but also that in the Home Page INPS the model "D" is expressly stated. Kafka or Bulgakov and are still among us!

So even surreal - although less complex - is the experience that involves the Public Registry of Vehicles, PRA. Because each vehicle is registered in it to check the situation of the property tax if it has been paid or not, it is simply connect to the site and check the PRA. This has been possible for a short time then no more! Since some months now you need to go to an Italian Automobile Club (ACI) Agency and to do this check. At the request made to the employee on this impossibility the simple answer was: "and then what do we do?"

The case studies above contain all the difficulties, and by contrast, all the opportunities of the smart city. That is, the city that passes from the control of process at the control of product. This involves a series of new relationships, degrees of freedom that modify the existing ones, everything affects spatial relations, namely the urban functions, features, spaces, the quality of the city and the territory. Of which the material of the first and second remain absolutely central: the challenge of the town planner is to propose an useful implementation of it for improving the well-being of people and the environment. The tables below^{xi} - where *Opportunity* mean "improvements" in the state of well-being while the *Risks* are the "potential barriers" - the psychological and behavioral ones are highlighted because they are crucial in the implementation of innovation, essential to the effectiveness of it.

It is noteworthy that a novelty of telematics is to transform *a service in a product* or *a product in a service*: in both cases being them very less, or nothing, materials. While key step for the effective implementation of the innovation refers to the passage from the *control of the process to the control of product*: it implies loss of power by the controller^{xii}.

It is essential the information and training both for residents, users and for technicians, administrators and politicians^{xiii}. Underlining that the more the former ones become in/formed much less the latter lose their authoritarian power but grow in authority. Information and a "cultured technology", quoting North (1991), urges, can open up new opportunities, including type of employment: the alternative is the sincere, but disarming, answer by the employee of ACI before reported.

Create the structural conditions that it be done in the most efficient way is the task of the planner, architect and engineer. A task which highlights the importance of management of the contemporary city, the city wants become smart. There is a potential rupture of the synchrony between space and

time in doing activities of any kind, especially in services: the ones that have participated in structuring the space, as Clementi says (1983), hospitals, schools, justice (quoted in Aragona, 1993) and that is at the bases of the industrial city.

Table 1 - **PSYCHOLOGY AND BEHAVIOUR in telework: OPPORTUNITIES**

OPPORTUNITY	Person	Company	Society
Psychology:			
- Improved personnel image	X		
- Increased motivation	X	X	
- Best family relationships	X		
Behavior:			
- Possibility of more information	X	X	X
- Greater autonomy	X	X	X
- Better management of leisure	X		X

Table 2 - **PSYCHOLOGY AND BEHAVIOUR in telework: RISKS**

RISKS	Person	Company	Society
Psychology:			
- Sense of isolation	X		X
- Minor exchange of experiences	X	X	
Behavior:			
- Possibility distraction external		X	
- Do not distinz. Working time / t. rest	X		

Table 3 - **ECONOMIC AND SPACE in telework: OPPORTUNITIES**

OPPORTUNITY	Person	Company	Society
Economy:			
- Increased productivity	X	X	X
- Reduced absenteeism		X	
- Reduced turn-over	X	X	
- Ability to work part-time	X	X	
- Possibility of micro-company	X		
- Development of poor areas			X
- Ability to work for "differently abled people"	X		X
- Ability to work for those who have problems moving	X		X
Space:			
- Reduction of working area		X	X
- Increased rate utilizz.edifici		X	X
- Reduced Rates & Speeds transport	X	X	X
- Promiscuity housing areas	X		

Table 4 - **ECONOMIC AND SPACE in telework: RISKS**

Economy:	Person	Company	Society
- Less integration with the company	X	X	
- Difficulties in management control		X	
- Less data privacy	X	X	
- Less bargaining power	X		
- Possibility of loss of status	X		X
- Less chance of carrier	X		
- Possibility of second jobs		X	
Space:			
- Promiscuity housing areas	X		
- Increased movement	X	X	X

The indicators of the first two tables (n. 1 and 2) are related at the conditions of physical and psychological well considered in relation to the relationship with the Person, the Company, the Society. There are opportunities and risks, they present new challenges both in relation to the movement that the use of space. In the following two tables (n. 3 and 4) in an even more significant are highlighted modifications relate to the increased number of possible degrees of freedom thanks to the tele-activities. This does not mean the disappearance of the necessary, -- inevitable in the strict sense of the term - their material component but provides an opportunity for a different management before and during activities. However the elements of the tables often are - in terms of time and factual - only a small percentage of the asset: every case need an implementation adapted to the context.

Must also be recalled the delicate issue of accessibility, both physical and functional. Regarding the former, the “digital divide” still separates areas of the country and, among these, the inner less accessible centers, less populated and therefore with less potential spending power than the most densely populated and rich ones. In this regard, the much discussed “broadband” should avoid - when it will make - not create the same effect of high speed: bringing closer those (the largest and most important urban centers) far and distant those who are near (the smaller and “not central” cities).

The functional aspect requires the ease of accessibility in the process and use. The non-positive examples cited earlier of INPS and ACI tell us the wrong mode both in regard the former and the other one. Firstly, the process must be completely telematic because if it is only one part of it there are not benefits for the users and for the service providers. All materials must be available online and readily in a friendly way: if this is not possible once the benefits disappear. These two requirements are indeed necessary conditions for having benefits in terms of: 1. *decreases of displacements*, i.e. energy saving for transport; 2. *less pollution*; 3. smaller vehicle flows and thus *increase efficiency in the use of connecting infrastructure and reducing road congestion*; 4. *best use of time* for each specific activity and, as an *indicator composed* of the above, it is the achievement of *better quality of well-being* for user. On the side of service producer to these advantages it has to add the best working conditions that is articulated in: raising the quality of use of the spaces, improve the relationship with users, etc. All this could be even more amplified with the possible conduct of such work from home.

Of course, these opportunities require new organization of work and space, as has always been the relationship between innovation and anthropogenic processes (De Pascali P., 2008). Exemplary case “trivial” but extremely useful is that of the intelligent streetlights that for some time Cattolica (Municipality in center-north of Italy) is experimenting: it could be not only for saving energy but also for many other applications for monitoring, reporting, surveillance of territory^{xiv}.

If the so-called “smart grids” have rapidly spreading all this could have a significant acceleration. The Smart Grid (Fig.1) exceeds the classic grid by integrating the actions of all users connected, which become *prosumers* that is *producers* and *consumers*, with the aim of distributing energy efficiently, sustainable, cost-effective and secure. A kind of *internet of energy* where each system of micro generation is connected to the network and able to communicate and receive data. Each user could become, from their residence or place of business, prosumer then - as mentioned before - both consumer and producer of energy in an open market to large distributors as well as to small users. So there would be no more only a distribution network that carries energy in one direction, by generation big few centers towards many small consumption points i.e. end users, essentially in a passive way. It disappears the only centralized control (lines, switches, transformers), there would be two-way flow of power and active networks, made also by electronics, computer science and communication. Although, it should be noted this requires a large bandwidth of communication network able to handle monitoring and control bi-directional, real-time flow of consumption profiles and micro-generation of users and operators by means of “smart meters”: only in this way could be constructed this *species of democracy of energy*.



Figure 1 - The City of "Smart Grids" (source www.tuttogreen.it)

4. The smart city that has to be planned and territorial diversity

But all above said requires to think, plan, plan and design the city smart, intelligent and useful for men and natural resources, for the flows of energy and communications. The smart grid needs a broadband connection, before has been written. For this to happen - and previously have been shown a summary of the opportunities and barriers/risks - it has to exist a strong idea of sharing territory and city, at least as a *public good*, if not as a *common good*. Only in this way is also socially effective and the efficiency improves living conditions, thus improves the quality of urban and regional planning: this improvement also includes the use of energy resources. If there is this shared vision of city and space is a possible redesign of the city aimed at the common good. Telework can be a benefit in terms of saving energy, of reduction in pollution, and of decrease in vehicular congestion. It can increase the efficient use of infrastructure since not only allows a decrease in absolute flows with the replacement virtual travel but also can lower the peak of transport, those that are the causes of slowdowns and blocks.

Amsterdam created a special Office to coordinate the urban policies with those of advanced telecommunications infrastructures. So this Office has proposed *The Telematics belt*, that is the belt of broadband telecommunications infrastructure considered as relevant - as well as railways, highways, etc.. - to spatial planning and the city. Or for better say, so that they could create a more effective and efficient structure for the one and the other, able to create local synergies (Aragona, 1993, chapter 3).

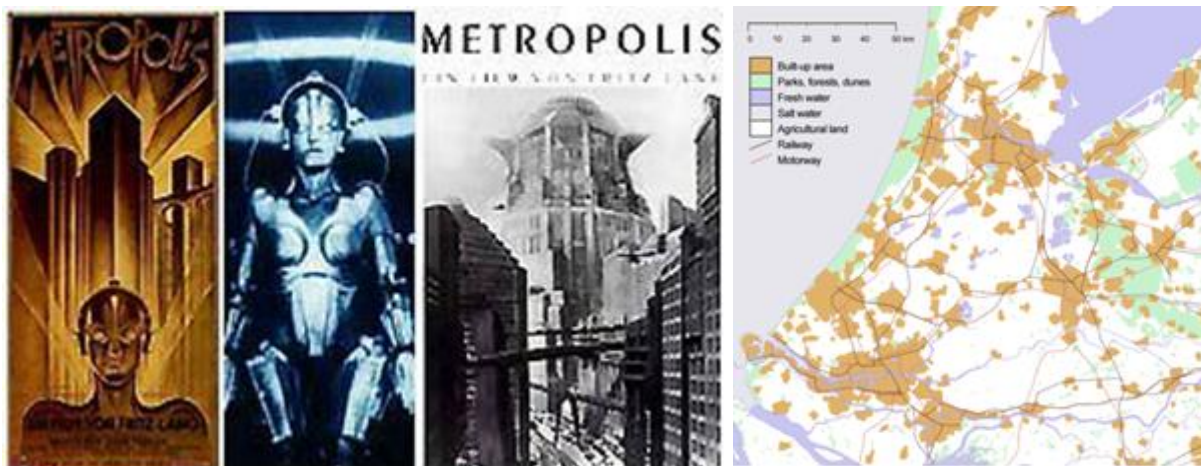


Figure 2 - From *Metropolis* (www.film.it/fritz-lang/foto/page/2/) to *Ecumenopolis*

In the Netherlands this philosophy and approach is extended to the entire nation. Through a succession of enlargements of infrastructure for advanced communications are planned diverse land use patterns, 3 different stages of physical and economic development of the nation: *Randstad World City; A World of Regions; Act Local, Think Global*^{xv}. All this having as a common element the quality and sustainability of the transformations^{xvi}.

But also other countries, at the beginning of the diffusion of advanced telecommunications - telematics - were determined to study their impacts and potential. So Switzerland did with the full-bodied, in-depth study of Roach and Keller, University of Zurich in 1987, MANTO Project. The difficulties of physical connections that characterize the area are one of the main reasons that have called for such study. This either to achieving an improvement in quality of life but also to maintain and enhance the competitiveness of the territories themselves by implementing the mentioned “act local, think global” philosophy.

These and many other nations of central and northern Europe have formulated policies increasingly integrated between flows of energy and communications, equipment and intangible assets connected and consistent with the choices related to natural components. In *Sustainable Copenhagen* there is the widespread use of renewable energy and of public transportation, together with the closure of the central parts of the city, miles and miles of bike paths and trains with places for bicycles: the approach to space is *integrated*, anthropization and nature - consistent with the integrated territorial strategies of the Leipzig Charter of 2007 - when it is possible material flows are replaced with not materials ones. The change from the *control of process* to *control of product* before said is a reality and the dematerialization allows a reduction in the demand for energy in moving both for people and things.

It is interesting to note that many of the morphological features mentioned in case Swiss are common to many Italian regions: the Calabria is one of them. Calabria is very behind in public services supply, public transportation, absence of industry, per capita income, etc.: it is one of the Italian region less developed. Condition created especially after the Unity of Italy in 1861: according a number of researchers underline that the “State of the Two Sicilie” had many scientific, cultural and industrial primates as the iron production (possible thanks to the presence of this material in place) in a Calabrian large area (Mongiana and Ferdinanda as the most important centers of it), with thousands of employs and the working hours were 8 (while in England, Germany and the rest of Italy at least 11), there was school and medical services as well as a church. With the Unity plants were closed and early emigration from the area. Already the POR (Regional Operational Plan which is the regional implementation of the policies of the European Union, lasts 7 years) 1999-2006, thank to various Actions (in diverse Axes)^{xvii}, has hypothesized possible scenarios. Citing data by the Censis (Italian Institute for Social and Economic Studies) of 1999 in the Region the level of penetration of “advanced” telecommunications was not low (Aragona, 2003a)^{xviii}; so there is the potentiality to be locally competitive consistent with the idea of “think global and act local” and with the Community

strategic guidelines to achieve a substantial improvement in terms of well-being and quality of the areas: lower consumption of energy, reduction of physical displacements and of soil consumption, better services to the individual and the company.

But also to propose a new identity that never existed in the past but able also to remember it. In this sense were elaborated the projects of "Cosenza Wired City. Cosenza and his Country", "e-democracy" and the "Confederation Bruzia", by Franco Piperno, Head of Department "Wired City, New Technologies, Electronic Democracy" of Mayor Mancini^{xi}. It highlights the fact that even the existence of a Department "Wired City, New Technologies, Electronic Democracy" was a sign of the great attention of the public institution to such opportunities. The same meaning and the same philosophy drives the experience of deployment of telematics in Soveria Mannelli, in the province of Catanzaro ^{xx}, in which the total population is just over 3500 inhabitants (Aragona, 2003b): pc in all homes, telecommunications networks, supported by the City Council.

The purpose to which these initiatives were intended - as mentioned earlier addressed and supported by EU strategies - has been that of creating *coopetition*, i.e. *cooperation* and *competition* between territories connected in network: cooperate but be in competing for local specificities: an original verification/testing of the "reticular" model of Dematteis(1985, 1990, 2005)^{xxi}. However, for the vast majority of cases, there has been alone competition without cooperation: and that fact does not create synergistic mechanisms that only cooperation can lead.

5. Conclusive cues: "Smart" is not enough...

Probably the various prerequisites which assumes Dematteis same - the presence of basic infrastructure, technical and administrative skills, adequate financial support system, the absence of the "three c", that is, *organized crime*, *cronyism*, *corruption* - are not sufficient. Fundamental conception is think space as a common good, why otherwise "close" the central parts of the city and focus on public transport? Telework is now widely practicable but only for individual advantage? Or just for economic reasons?

To deal with these reflections is interesting the attempt that Appold and Kasarda since 1990 are doing to build an integrated models able to bring together the basic elements of the *Human Ecology* with those of *Structuralism* (which is the maximization of returns of capital).

It is also interesting to recall that think global act local was coined by the authors of the book began to give resonance to the global issues of the finiteness of natural resources, i.e. *The Limits to Growth* (Meadows et al., 1972) report requested by the Club of Rome^{xxii}. So the smart ecological cities can be a way to create a smart globalization: that required by Rodrik (2011).

It should also be noted that the ranking for the provinces of creativity formulated by Professor Tinaglia - according to the hypothesis, which is based on the "three T", that is, Talent, Technology and Tolerance - see the provinces of the South in the last places mainly because there is little tolerance of diversity, the novelty ^{xxiii}.

Innovation alone does not, likely, produce anything for the community: the experience of the Piazza Telematics Scampia (degraded area of Naples, Italy), born with so many expectations and momentum but then stalled dramatically (Picinnini, 2010), testifies in such direction.



Figure 3 - Images from The First Biennial of Public Space (2011, Rome) and the celebration of the Referendum for the maintenance of public management of water and no nuclear power in Italy.

The “tele-assistance” of the Social Master Plan shows that the many innovations discussed, should be coordinated and structured by planning tools, design and programming. Remote energy, solar panels, wind Hydropower, smart phones and services, transport “on call”, decentralization of electricity production, “cloud connections” can give great benefits to the community but only if it is aware, informed and formed either as residents, citizens, and either as technicians, administrators and politicians.

While in the urbanistic culture and in operational planning has to be reinforced the attention for the *management* aspects of space, both in terms of services that in transform the existing, to raise the quality of cities and territories in *alliance with nature*, as suggested Scandurra since 1995, having it as prompter of the choices of anthropization and minimizing consumption of soil.

Looking for a new city - from Metropolis to Ecumenopolis mentioned by Dioxiadis since 1974 - considered as a *common good* as before said, and as seems to be the widespread demand of the “*trainees cum-cives*” of the contemporary city of whose Figure 3, *Images from The Biennial of Public Space (2011, Rome) and the celebration of the Referendum for the maintenance of public management of water and no nuclear power in Italy*, summarizes its content.

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Notes

ⁱ All Member States have adopted national targets in each of these areas.

ⁱⁱ As evidenced in 1993 in Aragona S. *The Virtual City. Urban transformation and innovation* (La città virtuale. Trasformazioni urbane e innovazione), Chapter 3.

ⁱⁱⁱ On the characteristics and peculiarities see Aragona (1996) *Networks Civic: first experiments with electronic 'public' for virtual city* and (2000) *Urban environment and innovation. The global city between local identity and sustainability* (Ambiente urbano e innovazione. La città globale tra identità locale e sostenibilità), Chapter 4.

^{iv} Text whose introduction was written by prof. C. Beguinot that, since 1985 and for many years has promoted the National Project on "Wired City" aimed at studying the use and impact of conceivable interactive telecommunications. Extensive documentation is in the volumes (Beguinot eds., 1990) *The wired city. Una Enciclopedia* and (Begunot, Cardarelli, eds., 1992) *The wired city and new architecture*.

^v So in 1980, *Building and Energy* (Edilizia e risparmio energetico) saving is the title of n. 461 of Casabella - the most famous Italian magazine of architecture - the same year is written *Energy and habitat* (Energia ed habitat) by Cornoldi and iOS, and *Bioclimatic Architecture* (Architettura bioclimatica) (Enea, On / arch, 1983), *The environmental dimension in urban planning* (La dimensione ambientale nella pianificazione urbanistica) (Ronzani, 1998), the text edited by M. Nicoletti *Ecosystemic Architecture. The environmental balance in the City*

(Architettura ecosistemica. L'equilibrio ambientale nella città) (1998), a collection of writings by Huber in 1999 *Territory, site architecture* (Territorio, sito, architettura), and in 2004 *The Architecture of the Sun* (L'Architettura del Sole) by P. Portuguese and R. Scarano. Remembering the old, basilica, experimentation by P. Soleri at Arcosanti (Phoenix, AZ) is conducting several decades, that has become cultural reference for subsequent experiences e.g. Ecolonia (1989-93) in the Netherlands (Aragona, 2010).

^{vi} Over thirty years ago, the mayor of Los Angeles said to Jack Nilles, at that time aerospace engineer at NASA, "You who are able to send men to the moon, can you solve the traffic problem in this city?" After a while Nilles has thought to the activities that do the astronauts with the control center on the ground and called this form of cooperation "teleworking". So also has born groupware (group and ware) for the study of activities of remote work during spaceflight (Aragona, 1993).

^{vii} As reported Aragona S. in 2003 *Master Urban Plan* and *Master Social Plan* (Piano Regolatore e Piano Regolatore Sociale).

^{viii} The case of the discovery of telephone by the Italian Meucci, but patented by Bell, is a very emblematic case of that.

^{ix} Which is set nine months after the request ... but that's another story.

^x Expression of type vernacular to say: "resolve, in an informal way, a matter".

^{xi} Revisiting of those already developed in Aragona (2000) *Urban environment and innovation. The global city between local identity and sustainability* (Ambiente urbano e innovazione. La città globale tra identità locale e sostenibilità), Chapter 3.

^{xii} Represented in a paroxysmal movie by the employee Albergo Sordi (the Italian actor) controlled from Corrado Augias (another good Italian actor), Office Director, in an amazing movie of the '60s.

^{xiii} There is no automatic control that can replace the opening or closing of a window with the change of the hours and seasons.

^{xiv} Because the streetlights are extremely disseminated (in Italy, 1 in every 6 inhabitants, and in the small towns you get to one every 2.5 inh.), one can imagine other uses of information related to use of sensors and webcams fixed on the pole that is near in almost all the points to be connected to the network: to govern the withdrawal of the garbage by calling the trucks when the bins are full, give weather news for agriculture calibrated exactly for that area, build a video surveillance system, create an early warning system for landslides and floods, monitor smog (Cianciullo, 2012).

^{xv} For further information refer to Aragona S. (1993) *The Virtual City. Urban transformation and innovation* (La città virtuale. Trasformazioni urbane e innovazione) chapter 2.

^{xvi} As highlighted in *Ruvin Approach Report*, essential document of the IV Report on the Planning of the Nation (1985) indicating the scenarios until 2025 (Aragona, 1993, chapter 2). Paul Drewe, already prof. of Planning at Delft University of Technology, Director of the Institute for Spatial Planning (OSPA) of the Faculty of Architecture, as well as advisor to the Ministry of Land, Environment and Housing (VROM), in 1987 illustrated this document in his essay *TLC and Alternative Future of the Randstad Holland* in *Revue d'Economie Regionale et Urbaine*, 2.

^{xvii} Intervention measures to which you can refer at the "wired city" are inserted in different Axes of the POR, Structural Funds 2000-2006: Axis 4, Local Systems Development, Division 4.1 - Entrepreneurship Development Local Subsector 4.1.1 - industry, Commerce, Crafts and Services, Measure 4.1.1.2 - Groups and networks Enterprises, Axis 5, City, Sector 5.1 - City, Subsector 5.1.1 - City, Measure 5.1.1.1 - Policies for Urban Areas; Subsector 5.1.2 - Human Services and the Community, Measure 5.1.2.2 - Services the person and the Community; Axis 6 - Networks and Nodes Service, Division 6.1 - Transportation, Subsector 6.1.1 - Transportation, Measure 6.1.1.2 - Networks and systems regional transport; Sector 6.2 - Telecommunications Subsector 6.2.1 -

Telecommunications, Measure 6.2.1.1 - Development of the Information Society; Sector 6.3 - Infrastructure Health, Subsector 6.3.1 - Infrastructure Health, Measure 6.3.1.1 - Health Infrastructure.

^{xviii} These data are critically analyzed in the essay "Calabria, Innovation and Welfare", in (ed.) Moraci F., *Welfare and Urban Governance. New directions for meeting the demand for services*, Rome, Officina Edizioni.

^{xix} Treaty in the contribution of Aragon S. "Action plans for the new urban environment: innovation in the local context", in *Proceedings of the XXIIIa Italian Conference of Regional Science*, 2002, Reggio Calabria. Cosenza is the second largest city in Calabria and has about 120,000 inhabitants. Bruzia was one of the ancient names of the Calabria: land of the Bruzii.

^{xx} City Capital of the Region Calabria.

^{xxi} The local features are those which, according Dematteis, in the conceptualization of the lattice territorial started since 1985, serve for the specialization of the center. He developed the "reticular" model to explain the so called "third Italy" other from the southern agricultural and the industrialized north (considering the recent decades).

^{xxii} The Club of Rome was founded in 1968 as an informal association of independent leading personalities from politics, business and science, men and women who are long-term thinkers interested in contributing in a systemic interdisciplinary and holistic manner to a better world. The Club of Rome members share a common concern for the future of humanity and the planet (<http://www.clubofrome.org/?p=324>) .

^{xxiii} For further information refer to Aragon S. (2006) "Recovery and urban regeneration, in smaller areas and not in the era of globalization", *XXVII Proceedings of the Italian Conference of Regional Science*, Pisa.

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