

les ateliers

maîtrise d'œuvre urbaine

Les Ateliers Internationaux de
Maîtrise d'Oeuvre Urbaine de
Cergy-Pontoise

36th International workshop of
Urban Planning and Design

QUELLE VIE DANS LES MÉTROPOLES AU XXI^e SIÈCLE ?

LIFE IN METROPOLITAN AREAS IN THE 21ST CENTURY

QUESTIONS

ABOUT THE GREATER PARIS TERRITORIES
AND LIFESTYLES

The Climate Wall and the World's middle
class

Par Jean-Michel Vincent, workshop supervisor

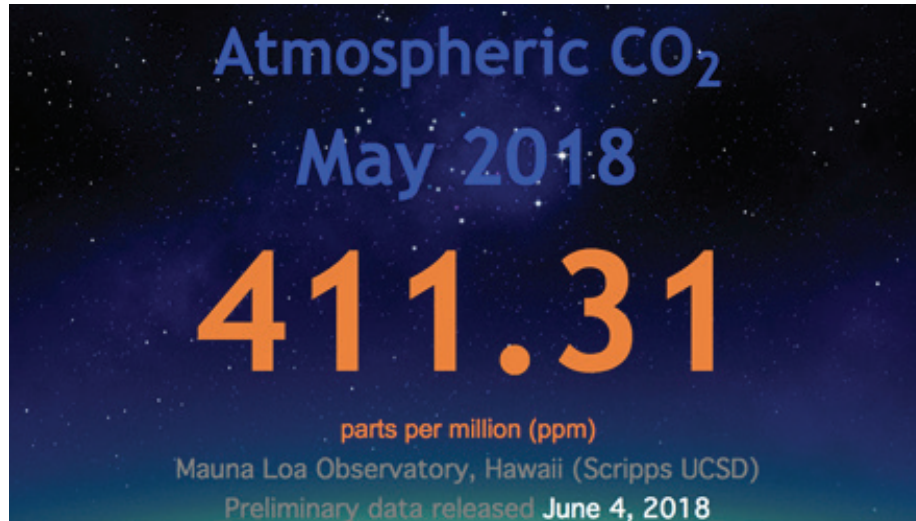
The Ateliers's partners for the 2018 session :



We are the problem, we are the solution.

The Climate Wall:

The Mauna Loa Observatory in the Pacific has been measuring greenhouse gas concentrations since the early 1950s. Last April, the concentration peaked at 410 ppm. At 415 ppm, we trigger a 1.5°C increase; which means that at the rate at which we emit greenhouse gases, we will reach this concentration in 18 months. At 450 ppm, we trigger the irreversible 2°C rise in temperature—which is essentially runaway climate change. At the current rate of emission, we will reach this by the 2030s.

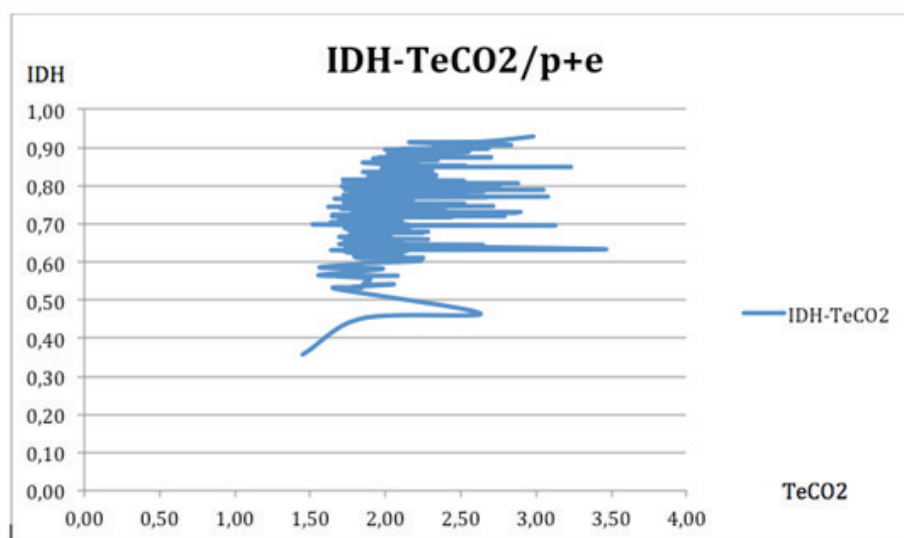


CO₂ content in the atmosphere (ppm) (Mauna Loa Observatory, 4 June 2018)

2018 Findings: With an atmosphere one degree warmer than before the industrial revolution, the effects of climate change are becoming evermore critical across the planet: more diseases, higher mortality, economic losses, loss of agricultural yields, more rainfall and droughts, floods on the lowest coasts where 40% of mankind lives, repeated outbreaks of migration and war, devastation of entire countries. And this is only the beginning. CO₂, once installed, remains in the atmosphere for at least a century: the effects will be felt for a long time to come, with an out-of-control climate machine running at full speed.

Who is to blame? The world's middle and upper classes emit more than 80% of greenhouse gases. Today, this means two billion human beings who have at least \$10 a day, compared to less than 500 million just 30 years ago. Three-quarters of these greenhouse gases are produced from the use of fossil fuels, while a quarter comes from deforestation for teak furniture and soybean farming to feed livestock. We are the problem, so we are the solution.

A one-third reduction in our emissions would give us 8 to 10 more years to act. A change in behaviours would make it possible to reduce these emissions by 20% instantaneously, without investment; while, with only minor investments it would be possible to reduce them by 30% in 3 years.

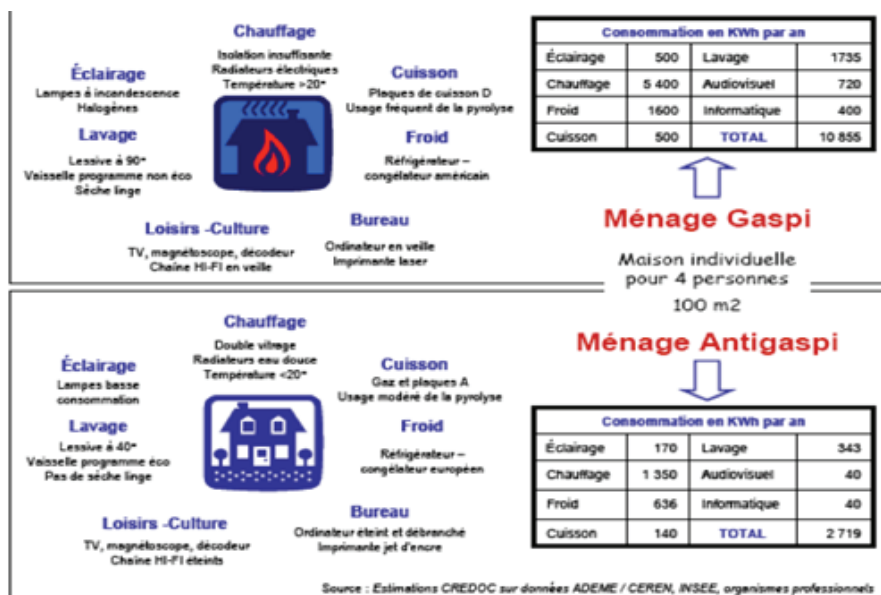


Index of CO₂ in the air, 2 July 2018

This reduction is not a matter of living standards. In the Île-de-France Region, the ratio between the territorial emissions of the 1,300 municipalities and their human development index shows that the same human development can be achieved with 30% to 50% fewer emissions.

Mentalities:

Eighty per cent (80%) of greenhouse gas emissions come from cities, where half of humanity is concentrated. Metropolitan areas are the driving force. Symptomatic, the agency that pushes for sustainable development innovation in France has found that when comparing households of the same size, energy consumption and emissions can vary by a ratio of 1:4 (from 2,700 kWh to 10,900 kWh) depending on the family's behaviour and lifestyle.



Simulation of annual energy consumption of two 4-person households (CREDOC)

Governments, no matter where they are, have long understood that half of emissions are due to behaviour, regardless of the policies implemented (regulation, incentives); while, the other half is attributable to occupied territories, such as rural towns, whose organization is essentially defined by areas for housing, employment, leisure and exchanges, with resistance to lobbies addicted to fossil resources included. Human beings and their environment form a system—a system that structures and is structured by behaviour. Territorial metabolism reflects this: local consumptions and productions; inflows and outflows for territories, including people, goods, knowledge and money.

The linear economy of production–consumption–waste ruins our ecosystem: 10 tonnes of resources per year for a European, with 340 t accumulated over time, and 5 t of waste per year, 60 t accumulated.

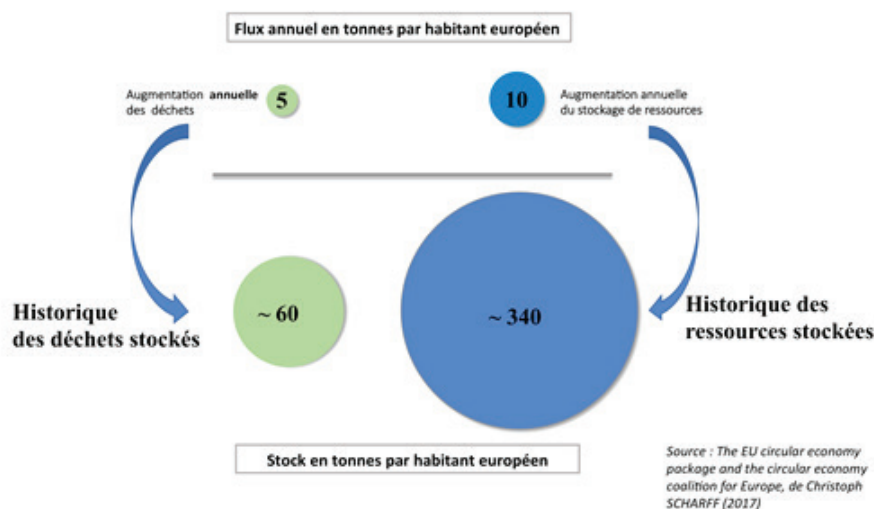
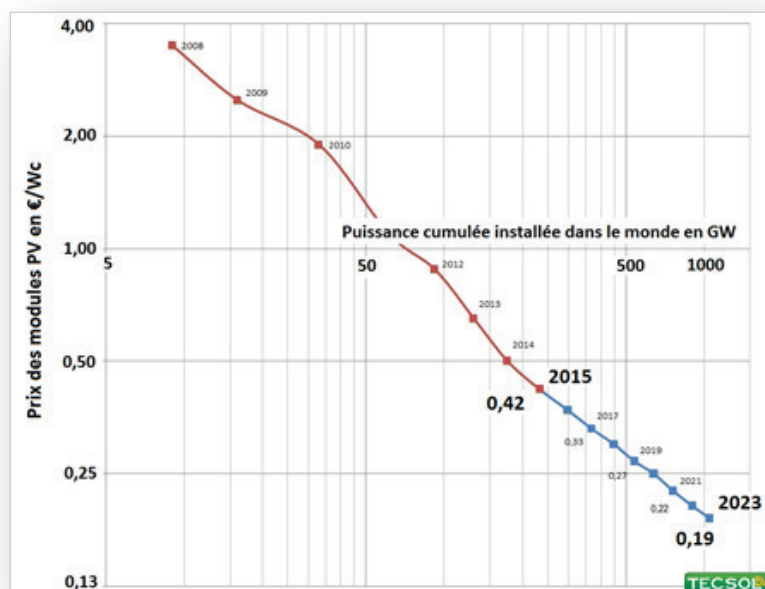


Diagram of the circular economy (Scharff, 2017)

Averting the threat of climate change requires a change in mentalities and, subsequently, the metabolism of territories, which have been built up over generations by investments in the occupation of minds and territories.

Photovoltaic electricity, long rejected by EDF (France's principal company for electricity generation and distribution, almost all of which is nuclear in origin), is a concrete example. The pressure from initiatives in France and abroad has finally overpowered such resistance. Photovoltaics are now cheaper than nuclear power. Last December, EDF embarked on a major plan to develop photovoltaics and to store the intermittent electricity production. France's leading oil group did the same. The historical gas supplier has a bio-methane production plan targeting 30% of national consumption.



PV module prices (Tecsol)

Energy, one of the 4 pillars of emission reduction, is therefore on track. The other three—food, buildings and mobility—depend a lot on our daily lifestyles. Meat at every meal, cars as markers of social status, and weekend trips by plane are emblematic of such lifestyle choices.

Territorial Intelligence:

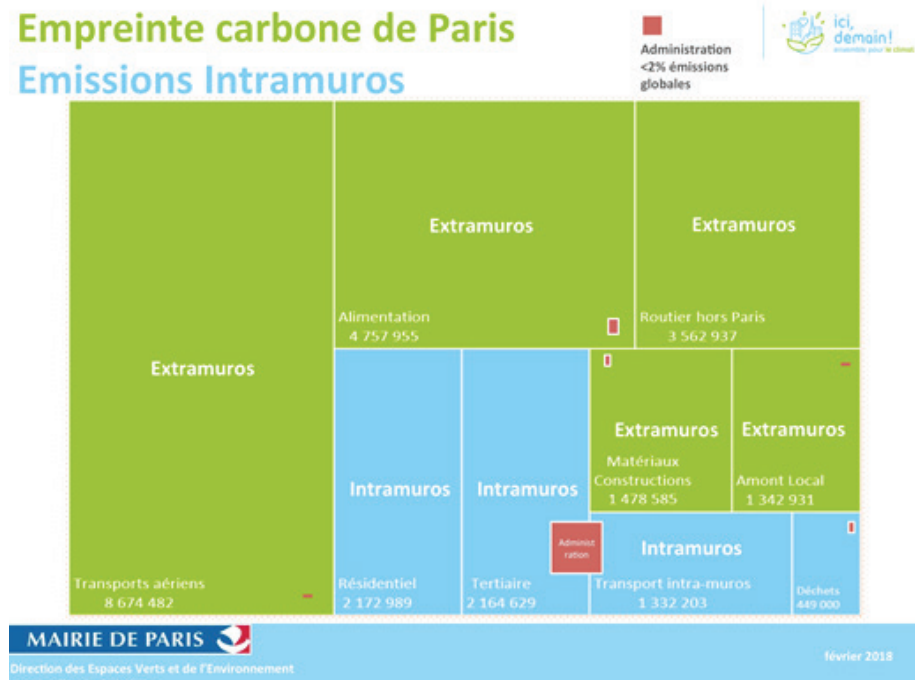
If the middle class and its lifestyle choices are therefore central to the challenges of changing the territorial metabolism, how do we proceed?

The region is an essential component: an organic region makes it possible to grow food, eco-materials and eco-energy in the countryside for consumption in the city; and thus changes the relationship between the city and the countryside.

But since it is a question of our lifestyles, we must also act at the local level, where we live, that is to say where we can make the decisions. Do we know our impact at this territorial level? No. Does public data exist? No, barring a few exceptions. One exception is in the Île-de-France, where several thousand local players have built a tool, validated by the Association of Mayors, that functions based on issues, action lines and indicators, which enables each inhabitant, entrepreneur and local elected official to measure his/her own impact on the territory and to produce projects that effectively change the metabolism of the territory. See <http://agirlocal.org/resume-d-amenagement-durable/>

The metropolitan scale is just as important because it allows the metabolism to be changed by demand. When Paris and the C40 act accordingly—the ban on diesel cars in 2024 being emblematic of this direction—lobbies can no longer continue blocking developments. With 1.3 million inhabitants, Copenhagen's campaign, launched in 2009, is on track to achieve its target of zero carbon by 2025.

Empreinte carbone de Paris Emissions Intramuros



Carbon footprint of Paris (Climate Action Plan for the City of Paris)

The Paris Climate Action Plan, which aims to achieve the same zero carbon objective but by 2050, with a first phase set for 2030, represents 2.2 million inhabitants in the heart of a region of 12 million inhabitants. Included in the plan is the stipulation that financial compensation will have to be made for the last 20% of emission reductions, which will eventually lead to a collaboration financed by the city and countryside to the tune of €7 billion per year.

The brand new Greater Paris, with an intermediate size (between that of the region and city of Paris) and 7 million inhabitants, is a driver that has not yet been leveraged at this level, just like the region. The preparatory work of the partner committee has pointed to a bleak situation; nevertheless, three drivers of action have been identified. Against the backdrop of French-style planning (plans, hyper-plans, Rantanplan), they are:

1. Develop a proactive climate plan. This would free the energies of the millions of decision-makers, by providing them with a framework identifying strategic sources of reduction and a toolbox for self-measuring their impact on the planet as well as the effectiveness of the projects imagined.
2. Building a metropolitan showcase that promotes initiatives, helping them to emerge. This would include establishing an engineering section—a trusted third party—for showcasing prototype projects and supporting their replication, from one sample to several million.
3. Create a transition fund for these innovative, replicable projects.

See <http://agirlocal.org/groupe-transition-de-la-metropole-du-grand-paris/>

UN PLAN CLIMAT PRO-ACTIF

Pour libérer les énergies

des décideurs, des acteurs de terrain,

des données publiques à l'échelle communale,

une boîte à outils pour mesurer programmes et projets

par des indicateurs

Pour fournir un cadre d'action

un diagnostic métropolitain (2016) mettant en évidence

les données publiques et les gisements stratégiques,

sur le CO2, la pollution, l'emploi, et la précarité énergétique,

Pour fabriquer des projets démonstrateurs

sur les gisements stratégiques identifiés

comme les réseaux de chaleur, la logistique, les tiers lieux, le vélo.

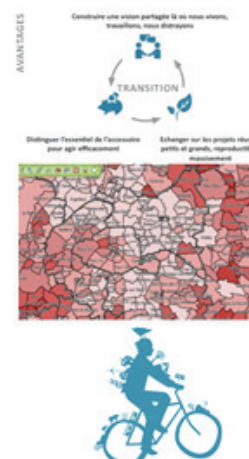


Diagram outlining the Climate Action Plan (DRIEA and Les Ateliers de Cergy)

Organizing to Converge Without Having to Coordinate

Three territorial scales—the region, the metropolis, the municipality—with the addition of France's inter-municipalities, can provide solutions, each on an adapted scale: buildings in the municipality, mobility in the region, food and energy at different territorial levels. A dual project–territory dashboard could effectively change the metabolism of territories.

The proposal made to the Greater Paris Metropolitan Area makes it possible to structure itself so as not to have to coordinate with several million local actors, which is impossible. But what is possible is to converge without coordinating, through local actions measured with a tool such as @d aménagement durable®, along with actions, projects, and replicable prototypes for identified strategic targets.

What could structure a tool that has yet to be built and that would be a showcase for projects, and which would leave whole the question of the trusted third party: who, how, with what characteristics? Like the convincing and engaging question in the account: the fresco of good government proposed by Quattro libri is an answer. See <http://agirlocal.org/soiree-transition-de-latelier-la-vie-dans-les-metropoles-au-xxieme-siecle/>

And like this, we have a major answer for the concrete handling of the transition through inclusion and vice versa. What makes up our daily society? Money and financing. With this thought in mind, you are invited to read the proposal made in Europe by climatologist Jean Jouzel of the IPCC and economist Pierre Larroustou: it appears scandalously simple and transposable to the rest of the world. See <https://climat-2020.eu/fr/> or for a 2-page summary, see <http://agirlocal.org/pacte-finance-climat/>