Executive summary

Over-consumption of resources sums up the main threat to sustainability of the Western model. It hinders the capacity of mankind to pursue its development, in an ecosystem that is no longer able to provide for its current needs. Science, technological innovation, headed by the digital revolution, open up huge possibilities to adjust consumption of natural resources and energy to real needs. It helps to better understand complexity, notably that of interactions between the living and its environment. However, it is difficult to see the exponential growth of digital uses as a form of sobriety. Based only on the one gauge of energy needs, an all-digital future doesn't match the course agreed upon at the COP21.

No sustainable solution can be considered without a better management of consumption, by mankind and its industries. Before any attempt to improve the efficiency of the system, it would be necessary to develop sobering practices, to #soberize the economy and the society.

Our recommendations to #soberize start from a different point of view than more ideological approaches of sobriety, such as those of Pierre Rabhi¹ or the Club of Rome², too far out to claim a following from a critical mass in the society. Instead we are looking for realistic trajectories, inspired by business models embedding native forms of sobriety, and likely to drive a transition for the more conventional economy.

Firstly, sobriety is a sociological factor, intricately woven into cultural context of the counties we visited. In France, it faces the tradition of so-called "bonne chère" (good food, and plentiful); all the creativity of marketing will be required to drive a change in behaviours, be it in housing, mobility, food, water, energy, or medication – notably antibiotics. **Our first recommendation will be as follows:** launch on the national level a marketing campaign for sobriety, based on behavioural sciences, in order to stimulate a positive change in uses. In the energy sector, France has recently promoted actions focussed on moving towards sobriety. They have to be supported, and pursued, while other countries, such

^{1 -} Pierre Rabhi, born in Algeria, is a French farmer, writer and philosopher, author of several works, including "The Power of Constraint" Actes Sud, 2018.

^{2 - &}quot;The Limits To Growth", otherwise known as the Meadows Report, develops theories of "de-growth". This analysis was ordered by the Club of Rome to the Massachusetts Institute of Technology in 1970 (published 1972).

as Germany, concentrate their efforts on industrial strategies of efficiency and renewable energies, as a growth factor of their economy.

The digital revolution is the foundation of innovation, be it industrial, biotechnological or societal. There is a form of sobriety in national models transitioning to all-digital systems, such as the e-government in Estonia. The pursuit of digitalisation in administration, state services and local communities can be a form of sobriety. It allows for saving time, travel and resources, and most of all, it fosters agility and reactivity.

Financial inclusion ensues; it has to be encouraged by both public and private initiatives. There can be no sustainable development without inclusion, and the inclusion of population in building their own future is the best guarantee of cohesion and social progress.

If there is one economic model worth developing and promoting as a priority, it's clearly circular economy. We recommend that resources be devoted to it, at all levels, and to strongly leverage in this field all methods of frugal and participative innovation (in particular hackathons): progress in recycling comes from any link in the chain, all of them having the same legitimacy. Innovation in this area is also strongly supported by the digital revolution. The *blockchain* opens new ways of traceability and cooperation.

The societal benefits of the new economy based on service platforms seem at this point to be mixed. **Uberizing is not #soberizing!** The legislator has to define equitable conditions of competition between the conventional sector and the new economy, taking into account the impact of these models on the future of work.

Traditional corporations are also embarking today on the path towards a sustainable and societal development, and everything has to be done to encourage this movement, that depends heavily on the willingness of senior leadership. We recommend merging Strategy and Sustainable Development in organizational charts, as well as opening up corporate governance to multiple stakeholders, thus ensuring the development of a more systemic vision of the future. What will follow is a necessary managerial transformation, based on cooperation and trust, in order to implement strategies which, defined on this larger scale, should target a longer and more sustainable term. Other tools of management demonstrate their usefulness: combining financial and extra-financial reporting in an effort to recognize the societal impact of the organisation, and putting in place an internal carbon pricing to guide strategies and investment.

We expect public policies to play, with determination, their spurring and coercive role in the eminently collective domain of sustainable and societal development. The regulator, by legislating, creates a ratchet effect, preventing a rollback. The independence of public policies, and their consistency, between norms, taxation, specific measures for the management of externalities, such as carbon markets, appear more necessary than ever.

The framework having been set, each sector will develop its most efficient practices to #soberize, and drive sustainable and societal development. Yes, industry 4.0 can and must put the human being back at the core of the process!

In agriculture, priority should be given to agroecology, the art of fructifying ecosystems without destabilising them. Local production and transformation have to be strongly encouraged, through the optimisation of logistic flows.

The diversification of rural environment will extend towards a more important role in the capture of CO₂ through the implementation of the initiative "4 per 1000", or extensive farming of seaweed, at the same time contributing to the performance of territories.

The search for sobriety can be a source of economic, social and environmental innovation at the local level: it would be advisable to promote the positive energy territories, through valuation and mutualisation of resources and consumption, following a logic of decentralisation and complementarity between territories.

The city is the place of all the confluences. In order for the cities and buildings of the future to become sober and inclusive, *low-tech* or *soft tech*³ approaches must be used, together with easily appropriable designs, thus guaranteeing an optimal functioning during the lifespan of the building, supported by passive approaches. Let's create the city of the XXI century, by bringing together inhabitants, urbanists, sociologists, artists and engineers, in a logic of inclusion and extended participation! Will the frugal city have a pavilion at the universal exposition in 2025? Just like the rural environment, eco-districts are extraordinary places for experimentation of "global thinking" and search of sobriety.

Mobility will have to move towards more inclusive formulas, because social exclusion and geographic exclusion feed on each other. The consumption of

^{3 - &}quot;Soft tech" refers to the use of technologies that are considered as non-agressive for designers as well as users.

fossil fuels must tend to zero, in favour of the development of a range of renewable fuels and energies: neither all-electric, nor all-gas, a mix adapted to the needs. Life cycle evaluations (such as *Well-to-Wheel*⁴ for the vehicles) must become generalised, to provide solid bases for comparison between global carbon footprints produced by different mobility solutions. An appropriate and sustainable taxation of fuels can help the shift and accelerate the use of alternative fuels, with a necessary prerequisite that it be inscribed in a fair international regulatory context.

Even more than fossil resources, the consumption of living resources, if not handled with sobriety, will have irreversible impacts on mankind, posing in a longer term a question of survival. Preserving life is, first of all, preserving biodiversity, as requisite to pursue a sustainable development of the human societies. **Promoting biodiversity at the appropriate level in public action and in strategies of private players, is becoming urgent, equally urgent as the reduction of the greenhouse effect.** Because no form of innovation can exist, nor will exist, on a perceptible horizon, to recreate what would have disappeared from the living environment.

These analyses and recommendations are available in more detail in a collective publication written by the FNEP Mission 2017, thus concluding a 3-year cycle devoted to the innovation. The publication itself is more of an account, a collection of good practices and sources of inspiration, than an expert report. It's a fruit of numerous meetings in Germany, Sweden, Estonia, Poland, India and Chile, where the FNEP Mission 2017 went in search of the best standards, the most efficient, concrete or emerging, practices in the field of the sustainable and societal innovation.

The team focused their attention on finding innovative examples of sobriety, presenting, on one hand, an intersecting perspective on the living, the energy, the city, the mobility, the economic and social structures, etc., and on the other hand, on the current dynamics such as: digitalisation, circular economy, social responsibility, and frugal innovation.

The FNEP (Fondation Nationale Entreprises et Performance), a think-tank connecting the public and the private sectors, endeavours to analyse the major and current subjects which are on the tipping point of the economy and the social and international phenomena.

The Mission 2017 is composed of 10 executives coming from both public and private sectors, and placed under the mentorship of Professor Gilles Boeuf.

They have created the neologism #Soberiser "to make sober".

^{4 -} Well-to-wheel refers to an end-to-end evaluation of the environmental impact, from the production of energy to its consumption by the vehicle.