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We hear regularly about endocrine disruptors. From time to time, a study on the blood of parliamentarians or schoolchildren's hair appears. Each time, analyses show the presence of these disruptors in a cocktail of thirty pollutants. Endocrine disruptors are molecules used in many common applications of everyday life, such as additives to plastics toys, goggles, boots, synthetic leather, food packaging. When they migrate in the body, they interfere with the hormonal system, creating deformities, cancers and reproductive disorders. Flame retardants, waterproofing materials, paints, cosmetics and pesticides also contain endocrine disruptors. Gradually, as their harmful effects were discovered and public pressure was manifested, some of these disrupters were banned. However, each time it's a tough fight because the producers of these molecules challenge their harmfulness and question scientific studies establishing it. The European Commission, however, at the origin of the most complete worldwide chemical regulations, REACH, has not yet managed to offer a satisfactory definition of endocrine disruptors.

But these are not the only chemicals of concern. The public is rightly concerned about the future of bees. Bee colonies may register losses of up to 80% at the end of the season. This carnage has many causes, the lack of flowers throughout the year, parasites and predators, hybridization, but also pesticides such as neonicotinoids. These are the most widely used insecticides in the world today to protect crops and livestock because of their power and persistence. But precisely these two characteristics make them highly dangerous to pollinators, earthworms, amphibians, birds, bats, fish. France is a major consumer of pesticides. Many farmers are aware of their health effects, but it's still a tough fight to try to limit their use, not only because of the strength of the chemical industry, but also because of agricultural habits.

In truth, modern economies are using an increasing number of products from the chemical industry. They have become chemical-intensive. And it's not about to stop. Every day 15,000 new bodies are added to the registry of the American Chemical Society (or ten per minute). In late February 2017, this registry contained 120 million. In the pile there are natural bodies, but most are synthetic bodies, which at least for now, are not yet being developed. Still, about 150,000 of these products are marketed. This proliferation creates diversities that defy analysis: diversity of chemical families and their metabolites, diversity of uses including intermediates, drugs, solvents, diversity of biological effects including genotoxicity, antimicrobial resistance, diversity impacts on fauna and flora whereby the toxicity, cancer, impaired immune system. All continents are affected. Animals living in the most remote areas are contaminated with bio-accumulator molecules which go through the food chain without regard to distance. And the situation is worsening due to demographic and economic difficulties limiting waste treatment and wastewater treatment. At this stage, it is not possible to know the consequences of many products on nature and health. Above all, it is not possible

to know the consequences of the mixture of these products together, or the overall impact of chemical pollution on the biosphere.

Chemistry is the science of matter and chemists play a beautiful game in reminding us that all is chemical, including the natural. It is also true that the chemical industry provides us many benefits. It could help solve many contemporary problems. For example, I think of the work on recycling CO_2 or on artificial photosynthesis that would reduce the greenhouse effect. Meanwhile, this industry must act responsibly and stop watering humankind with an unspeakable soup. Progress does not consist of constantly inventing new molecules without regard to their integration in nature, or their fate in organisms. Nor, certainly, does it consist of taking advantage of the slightest uncertainty arising from the difficulties of *in vivo* scientific demonstration in the real world. Advances in regulation, communication and digital techniques allow us today to envisage sharing knowledge on the chemical industry. This is why the idea of an IPCC on chemical pollution, repeatedly proposed by scientists, seems relevant. The idea deserves to be discussed on the international stage, defended by diplomacy with the support of public opinion, and submitted to the General Assembly of the United Nations. Remember that in 1962, it was the book "Silent Spring", by the American Rachel Carson, that launched ecology worldwide. She could no longer hear birdsongs because DDT had destroyed the birds' eggs.

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