

Science in Precautionary Measures
A synthesis of ECJ and WTO case law

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- **Science, a prerequisite to precaution**

I was in charge of making a synthesis of what is now required by courts (particularly the European Court of Justice and WTO) in terms of scientific justification of measures founded on the precautionary principle.

All of you know that these last years, the use of the PP has led to more and more disputes both in the EC and international arena. And probably you also know that these disputes more and more arise on the scientific basis of precautionary measures. Why? Because although everybody agrees that in cases of scientific uncertainty, science cannot dictate decisions and that States have to make choices that depend on the risk level they consider as “acceptable“, everybody also agrees that science must remain a foundation of any precautionary measure. The goal is to prevent situations where the PP is used unduly, for purely political or protectionist reasons.

The fact that science has to be a foundation of any precautionary measure is clearly asserted in France (Art. 5 “Charte de l’environnement”), in EC (Communication of the Commission on the recourse to the precautionary principle, 2 February 2000) and international Law (Art. 5.1 SPS Agreement).

- **Litigation and scientific basis of precautionary measures**

Logically, because science is becoming a growing foundation of decision-making, judges are more than ever repeatedly placed in a position where they have to check the scientific basis of such or such precautionary measure that is submitted to them.

As you know, ECJ and WTO are more and more drawn in the heart of experts’ battles, be it for antibiotics, feedstuff, beef growth hormone, GMOs or other Asbestos, and in all these cases, they are drawn on scientific grounds where they are asked to verify if the contested

measure is scientifically justifiable, if the state of scientific knowledge justifies this measure, if all relevant scientific data have been taken into account, or if weak data have been used as a simple alibi.

- **A guide for decision makers**

In doing so, judges (particularly in EC and international case law) have delivered, since a few years, a set of rules, a sort of *guide* to decision makers about what is required in terms of science. And no need to say that these rules appear of first importance because they determine the legal validity of precautionary measures. Knowing these rules is then essential to any public authority that wishes to avoid the cancellation of the decisions it has to take on scientific grounds. In fact, that's the validity of the whole administrative action which is at stake here.

- **What's the use for coexistence matters?**

At first glance, the use of such case law may seem limited for coexistence: coexistence largely remains a national issue and is not yet the object of international conflicts. One can even hope that in the coming years, coexistence technical tools - like sampling, identification methods, traceability tools... - **will** lead to trans-national consensus and facilitate international exchanges.

Nevertheless, all these technical tools imply preliminary scientific studies, so that they may become conflict causes, for example if such or such sampling method is disputed by a State or another.

That's the reason why there is a real stake trying to synthesise the scientific conditions required by judges for founding legitimate decisions.

- **case law homogenization dynamics**

Such a synthesis has become possible because there is a clear case law homogenization dynamics. Eventhough this may seem strange – for the PP is firmly grounded in EC case law whereas WTO does not recognize this principle per se – jurisdictions now appear to have very close interpretations of expertise and precaution. In fact, the ECJ tends to follow WTO's example and even to mimic WTO's case law. Both of them have then progressively

developed a quite homogeneous signification of what is a good precautionary measure in terms of science.

For lack of time and because it would be very fastidious, I won't go into details but just give the key words emerging from case law.

Precautionary measures and methodology requirements

A first set of key words concerns methodology requirements. 3 main points can be made here:

1. 1st point: Why scientific assessments?

It is necessary to use a scientific method to verify that the existence of a risk is sufficiently evidenced

Judges repeatedly insist that decisions must be based on a prior scientific assessment / on a risk assessment ground for if zero-risk can be a political choice, it cannot be a scientific basis.

2. 2nd point: Who has to evaluate what?

Case law gives elements about the fact that States / decision-makers carry out their own assessments or may have them carried out

...about What "risk assessment" means?

...about assessment methodology States have to follow?

Case law, particularly WTO, also insists on the fact that a real risk assessment evaluates the likelihood of a risk possibility or probability; For example, in the *Biotechnological Products Case*, regarding the studies provided by Austria to justify its contested safety measures: none of the presented studies *referred to a relative probability concerning the concerned risks; they rather made reference to the possibilities of risks or simply to the inability to determine probabilities*. Studies related to gene flows merely indicated there were "possibilities of direct risks that can be assessed in certain limits according to the state of progress of science and technology"; "The impact of transgenic grasses on the environment may be pervasive"; "Contamination of natural gene pools through synthetic genes is incalculable in principle in predictive risk assessment". Hence, the Panel concluded to the absence of any *probability assessment* and consequently to the illegal character of the contested measure.

3. 3rd point: How to evaluate?

Uncertainty is rarely high enough to prevent from carrying out a risk assessment

In a context of scientific uncertainty, the decision maker may object that a thorough risk assessment is not possible. ECJ and WTO both answer that scientific uncertainty is rarely high enough to prevent from carrying out a risk assessment and rarely affects the capacity to reach concrete decisions, especially as it is always possible to adopt provisional measures, without having to take a yes or no immediate and final decision.

Scientific assessment is a continuous process, adapted to the evolution of the scientific evidence.

Precautionary measures should have a temporary character before more thorough scientific evidence is collected. Consequently, research should be carried out in order to obtain additional evidence that is needed for a more objective risk assessment

Scientific assessment may be quantitative or qualitative ; the assessment does not have to be necessarily quantified – in mortality, morbidity, economic costs, risk rate, etc. –, nor presented like a mathematical model, but can be expressed without precise figures ; in any case, assessment must reflect “the real conditions of the real world” (example: possibility of bacterial infection of the Japanese apples and apple trees by the fire blight; the Panel considered that these studies did not demonstrate that the infection that Japan feared could happen in “real orchard conditions”).

In any case, assessment must be a high-quality and relevant one (type of experts entrusted to carry out a relevant assessment (“*principles of excellence, independence and transparency*”; “*qualified and respected sources*”); A true risk assessment must be related to the precise feared risk (it should be casuistic and specific, especially when a State tries to justify a derogatory measure, he must demonstrate that its assessment has brought up a *specifically national risk*, related to the characteristics of the country or area concerned).

Which relevant data should be collected to carry out the assessment ? Data representing the dominant opinion / data representing a minority opinion;
Results of the national and international research; most recent available data.

Here is a set of criteria that may seem obvious but if many precaution measures submitted to the ECJ or the WTO have so far been considered as illegal, it is largely because they did not respect one of these requirements.

Precautionary measures and scientific substance

But beyond the methodology requirements, precautionary measures are also judged in the light of substantial requirements; why? Because beyond methodology, judges tend to assess

more and more their scientific credibility. In particular, they want to be sure that the risk is not mere conjecture, that the risk is *sufficiently documented* by solid and clear scientific information, which do not resolve the uncertainties completely but nevertheless allow to characterize the risk, or at least to establish that its existence is not eccentric.

2 main points may be made here:

1st point: No minimum risk threshold

Judges refrain from defining a risk threshold below which a precautionary measure would be considered unfounded; because there is no rational calculation method in this field but also because the same risk can be managed differently by two Member States, both responsible.

2nd point: Measures must nevertheless be “sufficiently supported” or “sufficiently documented” by scientific data.

But contrarily to methodology requirements which are rather clear, it remains quite unclear at the end of the day what is the exact standard required for the risk to justify a measure. The ECJ sometimes refers to just plausible or credible elements, sometimes asks for objective elements of risk. In a similar vein, at WTO, for the measure to be “sufficiently supported”, risk must be either possible if it concerns a food product, or probable in the other cases (contamination risk of plants or animals...) but it's not very clear what exact difference WTO makes between these two notions. The important thing being in fact that judges are persuaded that the results of scientific assessments justify the adopted measure.

Judges as “arbitrators” of science

This reveals a real evolution and a renewal in judges position; whereas judges have traditionally been rather deferent towards scientific judgments made by decision-makers. Traditionally, in scientific and technical fields, judges only make use of a *restricted* monitoring authority over decisions made by the administration or Agencies (French and European Law refer to ‘misinterpretation of facts’ or to ‘deference’); however, this traditional heritage is slowly disappearing.

Judges act more and more as arbitrators of science, which surely raises deep interrogations regarding the judge’s role...

All the more reason for knowing and closely following these rules emerging from EC and WTO case law, particularly in the GMOs field where scientific grounds are so often contested.