Introductory Remarks

by Yves Chevallard

Let me begin with a few remarks in order to outline the topic of our round table discussion. The title — *Let's Cultivate Mathematics!* — gives a good idea of our main concerns. However, I would like to stress some hidden aspects of the situation to which it implicitly refers.

(1) In today’s societies mathematics has come to be one of the main constituents of the societal machinery. This point should be carefully appraised. For instance, mathematics as a driving force had not as yet become central in 18th century European countries. It certainly played a key role in some branches of economic activity, such as commerce, but it had not achieved the vital importance that it has gained today. In present-day societies, mathematics is indeed an all-pervasive ingredient which has lodged itself in every nook and cranny of the social structure. If we could cut off mathematics just as we can cut off electricity, very little would survive for long. For our societies run on mathematics as they run on electricity. I shall not address the question of why this is so, or whether it could be otherwise. I take reality as it is, whether we like it or not. And I shall emphasize rather an apparent paradox, which will lead us to the main problem we are currently confronting.

(2) The part played by mathematics in yesterday’s societies was not impressive, but nevertheless mathematics had achieved *cultural visibility*. What I mean here is that people generally knew that mathematics was underpinning at least *some* aspects of social activity. All European languages have apparently recorded this state of affairs, using different expressions, e.g., in English, “I don’t understand the mathematics of it”.

(3) The gap between the man in the street’s vision of society and the reality of social functioning was brought about by two overriding factors, the first of which is the industrialisation and the subsequent rationalisation of our societies. In this long-term process, the traditional mathematics of commerce, accounting and