Report on the ***VivAgora*** workshop:

GENERATING A FRAME FOR NANOPRODUCTS AND BUILDING TRUST

Tuesday 23 September 2008 - 8h30 to 10h30 a.m.

Christoph Meili (The Innovation Society)

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In the course of its 'Opinion sur Rue' series, VivAgora ran a workshop entitled: **Generating a frame for nanoproducts and building trust**.The meeting took place at the usual venue, the restaurant "Le Chien qui fume" in Paris, on 23 September 2008. True to its spirit, the meeting gathered a small eclectic crowd of professionals, mostly from industry. The goal was to discuss the impact on trust of various approaches of nanotechnology risk management. The speaker of the day was Christoph Meili, the founding Director of The Innovation Society, a Swiss-based but internationally active consulting company specializing in new technologies with a controversy-risk-opportunity profile. www.innovationsociety.ch

Dr Meili started his presentation by quoting Robert Landry, CEO of Zurich North America, to remind the audience that nanotechnology was considered one of the top 4 emerging risks for insurers alongside climate change, aging infrastructure and 'the unknown'. He stressed the difficulties related to the sensitive areas of agri-food and cosmetics. He then outlined the various attempts available worldwide to frame constructively the development of nanotechnologies. He gave a panorama of initiatives in place or in development, with an emphasis on voluntary measures in nano-risk governance: reporting schemes, codes of conducts and scenarios. Finally, he introduced the CENARIOS® system, the first certifiable risk-management and monitoring system specially designed for nanotechnologies. http://www.innovationsgesellschaft.ch/index.php?page=88

CENARIOS® (Certifiable nanospecific risk management and monitoring system) was developed jointly with TÜV SÜD (Industry Service Munich and The Innovation Society, St.Gallen). It therefore benefitted from the strong experience of an organization with a long history of consulting, testing, certifying and training for industry, retail, and governments. The CENARIOS® system is already operational, with its first certificate at Bühler PARTEC's in operation since September 2007. Its 360° foresight tool can control nanospecific risks in perspective, and produce competitive opportunities applicable along the whole value chain.

Christoph Meili insisted that the value of CENARIOS® is that it is not a product label, but a risk management certificate which can apply equally to insurers, to industry and to policy makers. Although it could also be applied to other contexts, it has been designed to be particularly well adapted to the development of nanotechnologies and to meet three major challenges associated with them: An unclear risk profile, high uncertainty and dynamics, and regulatory and liability risks increased by missing, insufficient or volatile regulatory frameworks.

The presentation was followed by a lively discussion on the theme of the day: **Generating a frame for nanoproducts and building trust.** The questions from the audience highlighted some of the preoccupation of industry. One could summarize these preoccupations as follows:

- There is ***high tension underpinning nano-related business activity***. According to the representatives of industry who were present, customers WANT innovation and new products. Industrialists strive to satisfy them because it is a drive for business development. Yet at the same time they do not want repeats of what happened with asbestos. So the great tension comes from the fact that today ***industry does not know how to reconcile the need for innovation with the fear of potential liabilities***.

- It seems that the most appropriate answer to resolve this tension would be to generate a frame for nanoproducts that would generate – and maintain – trust for all parties. The difficulty is to find such a frame. The questions asked showed that industry is very eager to compare solutions, to know what is happening in other countries, or in other types of industries. China was mentioned several times, as members of the audience sought clarifications about its regulatory role. Christoph Meili insisted on the decisive role that China has taken in the development of ISO standards for nanotechnology.

- ***What others are doing is a recurring preoccupation***. There were questions about the position and role of Asia in nanorisk management, questions about the respective values of American or European pieces of regulation like the EPA ruling on nanosilver or the capacity of REACH to cover nano-based materials. There were statements on the necessity to develop comparative research work. Those who spoke showed a clear desire – and commitment – to share knowledge on nanomaterials' life cycles and characteristics and to develop data bases and protocols.

- There were specific questions on the voluntary reporting schemes that some governments are trying to put in place, like the EPA's Nanoscale Materials Stewardship Program (NMSP) in the US or the UK Voluntary Reporting Scheme for engineered nanoscale. It emerged that these voluntary reporting schemes may not be what the industry wants. It seems that industry-based voluntary Codes of conduct appeal more to it. Again the questioning revealed a desire to know what others were doing: Could the code of conduct worked out by Swiss retailers be transferrable in France?

http://www.innovationsgesellschaft.ch/media/archive2/publikationen/Factsheet_CoC_engl.pdf

  The questions also bore on the value of a scenario approach of nanotechnology risk management, clearly showing an interest for risk monitoring options.

The contents of the discussion might be summarized by saying that

- Industry does not believe in government-based frames of voluntary reporting schemes.
- There is strong disagreement on whether existing regulatory frameworks can actually cover the development of nanotechnologies.
- The future of nanotechnology regulation seems likely to come from the development of new forms of standards and certification.

The question which was not asked in this exploration of comparative frameworks for nano risk management and trust building ***was the relative cost of each type of solution***. The cheapest solution for industry would be government-based frames of voluntary reporting schemes, and this is the least popular initiative at the moment. The application of standards and certification – also on a voluntary basis – is the most expensive solution. Indeed, the creation and conduct of tests to demonstrate compliance to agreed standards or best-practice scenarios is very expensive. Yet it may be the best way to offset future liabilities. This may be why industry is so torn at the moment. The likelihood that the nano-risk-management option they choose today will actually mitigate potential future liabilities is probably what will win the day.