



**International High-Level Roundtable on  
Environmental Health aspects of the Lisbon Agenda  
and the Sustainable Development Strategy:**

**“Clean, clever and competitive from a citizen’s perspective”**

27 November 2006, Goethe Institute, Brussels

**Chemical brain drain**

**Presentation by Philippe Grandjean, MD, Professor at the University of Southern Denmark  
and Harvard University**

The foetus and the child are particularly vulnerable to pollution. The foetus shares the mother's exposure and accumulated body burden of pollutants, and some chemicals will be transferred to the infant via human milk. During early life, cell differentiation and organ development must happen in a particular sequence and at certain times to create optimal functions of the mature organism. This vulnerability is particularly important in regard to the development of the nervous system - there is only one chance to develop a brain. We now have detailed documentation that developmental exposure to a few toxic substances, such as lead and mercury, can cause serious disease and also permanent and widespread loss of IQ - the impact represents a calculated loss of billions of Euros per year. While the sensitivity of the developing brain is well documented, the effect of individual pollutants is poorly understood. Hundreds of chemicals, perhaps even thousands, can cause brain toxicity and are suspected to harm the developing brain. However, there is no systematic testing for these effects, and the REACH programme does not require such testing. New approaches to protect the brains of future generations are therefore urgently needed.

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