

**ASTA Workshop:**  
**”Towards Robust European Air Pollution Policies”**  
**Gothenburg, October 5-7, 2005**  
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Experiences from the ASTA project (the social scientist view)  
How to account for success?

(not necessarily the ASTA success, but the success usually ascribed to the regulation of transboundary air pollution in Europe)



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## Science Must be Explained

*If science plays an important role in environmental regulation,  
the reason for this must be explained (Lidskog & Sundqvist, 2002)*



## **The STS Opinion on How Scientists Present Science in Public**

*The problem is that scientists have surrounded their enterprise with a false aura of certainty.*

*There seems to be only two ways of thinking about science. Science is either all good or all bad. Both these ideas of science are wrong and dangerous. This is the flip-flop thinking of science.*

*(Harry Collins & Trevor Pinch 1993, 1998)*



## Conclusions from a Meeting Between STS and Transboundary Air Pollution

- STS argues that scientists in public present scientific results as certain.
- Scientific experts connected to air policy do not strongly focus on certainty.  
The external pressure to deliver certainty has by tradition been weak:  
it was enough if scientists could come together.
- Therefore, these scientific experts are of great importance to study due to their focus on the negotiability and adaptability of scientific knowledge. This case offers lessons to other policy areas and also to the field of STS.
- STS scholars are right when they consider a strong focus on certainty as an enemy to fight.

## Waldsterben – Not Scientifically Important but Important for Science

- Waldsterben played an important role for the development and quick agreement of the first two protocols under the Convention, the first sulphur protocol signed in 1985 and the protocol on nitrogen dioxides in 1988.
- Scientific knowledge was by most scientists considered uncertain and data relating to effects were interpreted in different ways.
- The general public and mass media were more convinced than the scientific community about the existence of a clear connection between air pollution and forest damage.
- Most scientific experts connected to air policy work were not very unhappy about this situation. They took advantage of the situation of certainty which was not created by themselves.
- Once again (compare the Cold War logic ten years earlier) the surrounding society gave science a prominent role to play.



## Critical Loads and RAINS – Science-Based Policy Instruments

- Science-based policy instruments have been supported and considered credible by both the scientific community and the policy community (negotiators).
- This has (once more) given room for scientific experts to establish innovative, but in scientific respects uncertain, policy tools.
- Scientific experts (once more) did not complain about this situation.
- It was not science that decided the Oslo protocol, but scientific experts were given (or took) the opportunity to formulate science-based policy instruments which were of crucial importance in the negotiations.
- Scientific experts were close to the negotiators and their policy tools facilitated and gave important direction to the work.



## Air Quality, WHO and the Integrity of Science

- WHO strongly emphasize scientific integrity and a will to stand free from political and sectoral interests.
- The work carried out by scientific experts under the Convention is about to serve policy makers with what they need and, not least, present innovative ideas of what they could or should need.
- The WHO experts want to do this in a way that protects scientific integrity and this means that policy makers and not scientists should make policy. What policy needs is good science! (see Letell, forthcoming).





## Conclusions: To Explain Success

### Contextual factors (not so easy for scientists to change)

- For a long time there has been a consensus in society about the problem of air pollution and that air quality is important for health. No one can say "I do not breathe!"  
Compared to other risk issues this is a good starting point for avoiding strong conflicts.
- The public debate on air policy has not been completely in black and white. Citizens have not been forced to choose between simplified versions of right or wrong, true or false.
- Big politics has been supportive: the Cold War logic in the 1970s, Waldsterben in the 1980s, and today perhaps urban air quality is playing a role.

## Conclusions: To Explain Success

### **The organisation of scientific expertise (easier for scientists to change)**

- Scientific experts were early on given room for making policy, and they took it.
- A focus on certainty has been avoided. Alternative interpretations of scientific results have been discussed quite openly. No strong pressure on showing certainty to the outside world.
- Close contacts have been established between the scientific community and policy makers, The LRTAP organisation of working groups and task forces are guaranteeing this.



## **Conclusions: To Explain Success**

### **STS lessons for good communication**

- Avoid focussing on certainty.
- Make room for meeting places where actors can discuss and negotiate both their knowledge opinions and their identity as actors.