

**The importance of NTM for reducing emissions
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How to treat NTM in IAM

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RAINS Review – Questions re NTM

- Question:

- Is there bias due to the restriction of modelling to end of pipe control measures?

- Would including non-technical measures improve forecasts of i) environmental results or ii) economic impact?

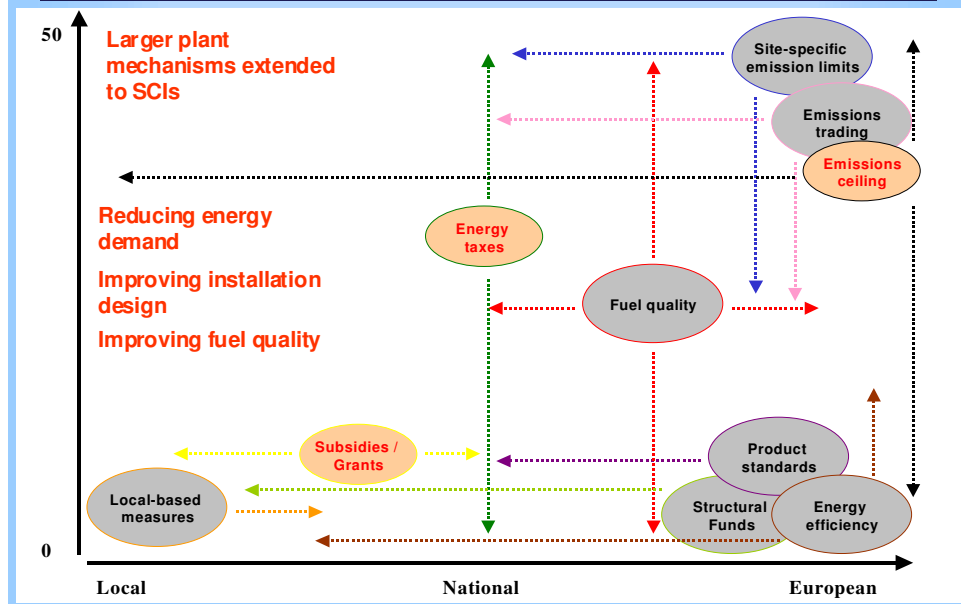
- Is the current means of assessment and verification adequate?

- Are there differences between ex-ante and ex-post assessments of the costs of control, if so why?
 - Would these differences have influenced the results of the Gothenburg Protocol and the NEC Directive?

RAINS Review findings re NTM

- Historically, costs have been overestimated in RAINS
 - Are end of pipe solutions more expensive than options associated with structural changes and economic reactions to market stimuli?
 - If so will this conservative bias become more important when considering multiple pollutants?
- Inclusion of NTM (market-orientated mechanisms) would:
 - result in a more accurate estimate of the costs of a policy but may lead to greater uncertainty.
 - a more rapid realisation of environmental (policy) results.
 - but what would happen/when, what would be the side effects?
 - Is it appropriate to include NTM measures as alternatives to EoP measures on a cost curve?
- Sensitivity analysis is needed, at country and sector level, to better understand the nature of the bias.
 - Does it matter for IAM that any overestimate of costs may differ from country to country as a result of differences of the real costs of capital?
 - Is a uniform discount rate appropriate for economies in transition

Review of policies and measures for SCIs



Questions relating to the inclusion of NTMs raised by the SCI work

- Questions:

- do we have the data needed to assess NTMs in the same way as EoP measures?

- Efficiency

- Applicability

- Cost

- Can we analyse NTMs independently of a policy scenario.

- Issues

- Modelling at sub national spatial levels

- Compatibility of combinations of options