EGTEI

Feed back information concerning comments on synopsis sheets (and background documents)

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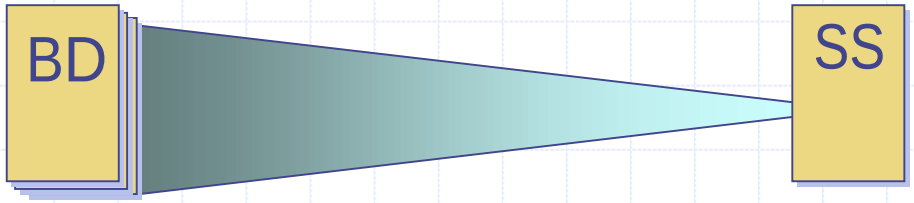
Feedback on Background Doc./Synopsis Sheets



X0 pages (comprehensive) for nat. Experts, Industry,...

Résumé (<10 pages) for Heads of Delegation WGSR, ...

- LCP by NL, B, NGOs
- Refineries by NL, B, UFIP

- Glass by NL
- Cement by NL
- Refineries by NL, UK, UFIP

3 Main Types of Comments

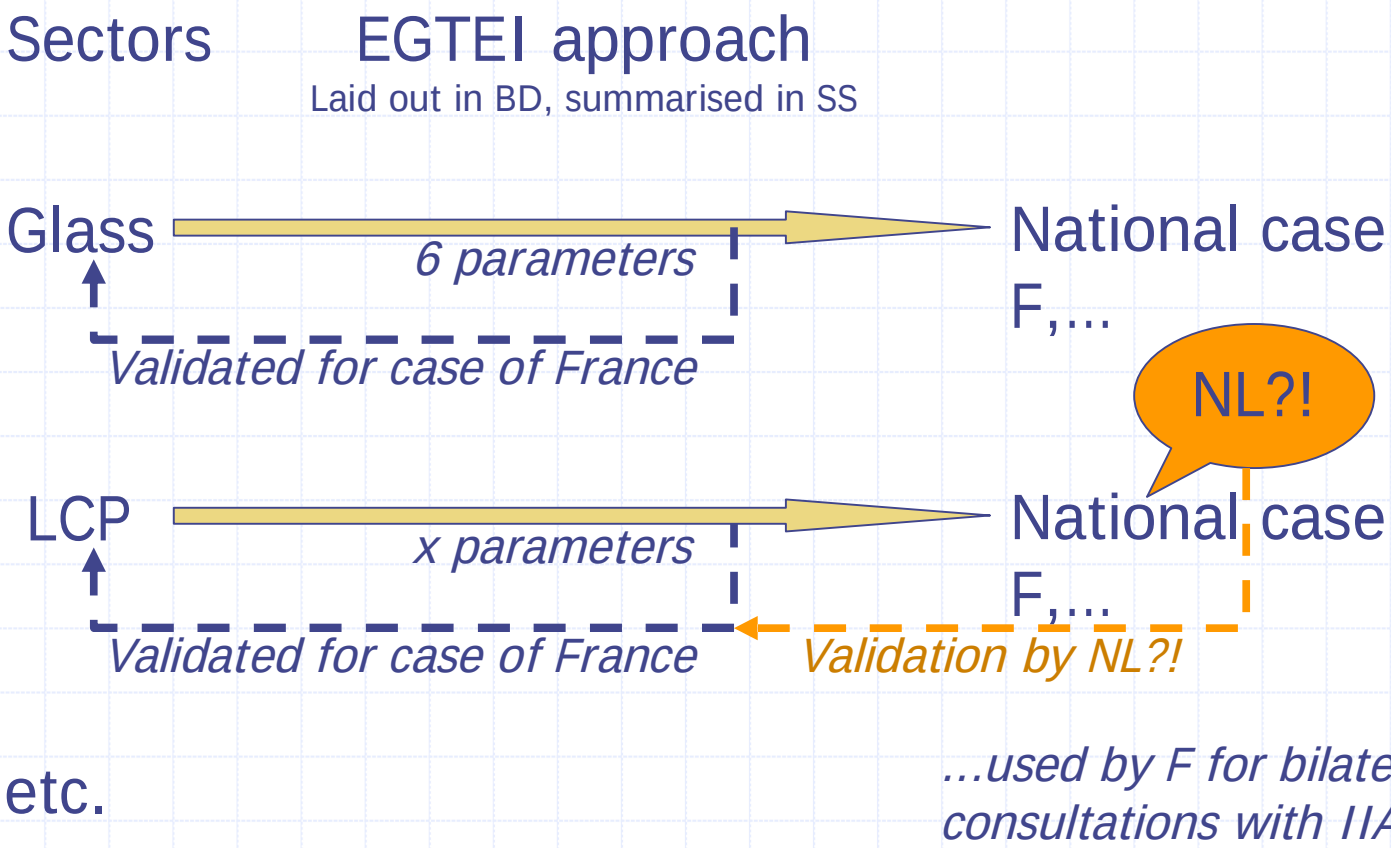
1. Method: Adequateness for specific country situation
2. Details on costs and other parameters
3. Compatibility with data actually used in RAINS

Synopsis sheets / Background document

- Synopsis sheets can not comprise all the information given in the background document. It is a summary

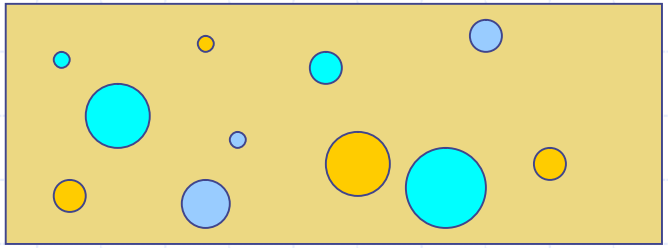
- Open points based on lack of explicative detail can be clarified by referring to the respective background document

General Idea - Situation



Aggregation to RAINS level possible with ECODAT

EGTEI Approach versus “real world”?



Numerous installations (capacities),
each more or less “individual”,
some more performing than EGTEI-prop.

EGTEI Ref. Inst. “Toolbox”: (here: Glass)
1 capacity, certain unabated emission concentration
2 fuels
1 primary measure
4 secondary measures

6 parameters needed

Glass approach – Case of NOx

Simplified input - output calculation sheet for the

GLASS Sector

4 Input parameters

to be filled in to calculate activity levels and application rates

PARAMETER	1995	2000
Natural gas consumption in the whole glass sector [TJ]	23,010	26,830
Heavy fuel oil consumption in the whole glass sector [TJ]	22,900	18,660
Total quantity of glass produced in the whole glass sector [t]	5,490	6,000
E_{NOx} Emission of NOx [t]	17.25	14.71

4 input parameters

Results

obtained on the basis of above inputs

Calculated application rate for each abatement measure

Abatement measures	Application rate 1995 [%]	Application rate 2000 [%]
None	0.00	0.00
Primary technologies	84.19	43.72
Primary + Secondary technologies	15.81	56.28

Current legislation control scenario (CLE) calculated

Details on cost and parameters - 1

Some parameters are fixed in EGTEI and can not be changed.
EGTEI default values compared to NL comments (examples) :

- Investment [k€]
- Interest rate: 4%/a
- Fixed operating cost: 4%/a - Dutch proposal value: 12%
- Lifetime of the control equipment [a]
- Unabated emission factor [mg/Nm³]
- Abatement efficiency [%]: primary NOx measure 65%
  Dutch proposal value: 55%
- ...

Details on cost and parameters - 2

Country-specific parameters can be changed or the default values proposed by EGTEI can be used

→ Cost per tonne of pollutant abated can be calculated

Ex: glass approach – Cost per tonne of NOx abatted for France

	RAINS model			EGTEI results		
Pollutant	Abatement technique	Efficiency	Cost per tonne of pollutant avoided in EUROs	Abatement technique	Efficiency	Cost per tonne of pollutant avoided in Euros (for France)
NO_x	Option 1	40%	1,000	Primary technology	65%	218
	Option 2	60%	3,000	Secondary technology	82%	1,952
	Option 3	80%	5,000			

Results obtained on delivery of the input parameters

- Pollutant emissions are estimated for all the scenarios (NoC, CLE, MFR)
- Costs are estimated:
  - per tonne of activity (t of glass melted or produced)
  - per tonne of pollutant abated

Questions: Are the results in line with the specific situation in the country ?

Yes → Validation of the EGTEI approach

No → In how far the EGTEI approach should be modified ? (how much work ? Consultation with skateholders)

Compatibility with the RAINS structure

Compatibility between a sector being represented with EGTEI approach on one hand and the type of information having been reported on the sector to IAM/IIASA by Parties and industry so far

„Belgium has recently finalised its assessment of the Belgian RAINS data for the NEC review (bilateral consultations with IIASA were held in September 2005) and we are therefore hesitant to redo this work. Before putting new effort on obtaining and submitting all country specific data and before filling in detail the ECODAT database for refineries, we would like to know the view of other parties and some clarification on questions below:

- If endorsed, will IIASA use the background document and ECODAT for refineries as one source of information besides others to change the RAINS data on refineries or is the intent to fully use the work of the EGTEI expert group?
- Will the structure of RAINS module be adapted to include new categories like the catalytic crackers and the sulphur production units?“

Possible approach of sector representation - 1

Ideal approach

- Knowledge of the technical parameters (size, emission, etc.) of representative samples of installations

→ Problem: Variability of cases in Europe / UNECE

Possible approach of sector representation - 2

Solution adopted by EGTEI

- Characterisation of a sector by one or more reference installations

Reference installation (RI):

- for all installations which can be assigned to a certain reference installation, the same emission reduction options can be applied;
- all installations which are assigned to one reference installation show similar abatement efficiencies and costs for given emission reduction options.

Constraints of the approach

Constraints for determining the RIs

- Level of detail and number of RIs are depending on the studied sector
- Importance to minimize the statistical data to be collected (simplification)

→ Choice of the number of RI must be judicious

Data to be collected

- Activity level from 2000 to 2020 for each 5 years
- Share of the reference installations from 2000 to 2020
- Application rate of emission abatement techniques taking into account the regulatory constraints (European or country specific)
- Applicability
- Country specific parameters

Help provided by EGTEI to the experts

A lot of information is necessary, but:

- EGTEI provides default costs on basis of default country specific values
- EGTEI provides a methodology to determine application rates and applicabilities (Excel sheets)
- EGTEI tries to minimize the number of parameters necessary for representing properly a sector (Glass sector: only 6 input parameters)